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LAGUNA HONDA HOSPITAL BOND PROGRAM REPORT

SFCA-0326

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LAGUNA HONDA
HOSPITAL

*Into the 21st Century:
Building a New Facility
to Continue
Laguna Honda Hospital's
Mission*


April 21, 1992

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DEPARTMENT OF PUBLIC HEALTH



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Laguna Honda Hospital Bond Program Report



Into the 21st Century: Building a New Facility to Continue Laguna Honda Hospital's Mission

April 21, 1992

*CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC HEALTH
DEPARTMENT OF PUBLIC WORKS*

*KAPLAN McLAUGHLIN DIAZ
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Into the 21st Century: Building A New Facility to Continue Laguna Honda Hospital's Mission

Bond Program Report

Section I. Executive Summary

For over 125 years, San Franciscans have relied on Laguna Honda Hospital as the main provider of the City's long-term health care services. Committed to serving citizens regardless of their ability to pay, the Hospital has offered quality care and a source of security to generations of elderly and disabled.

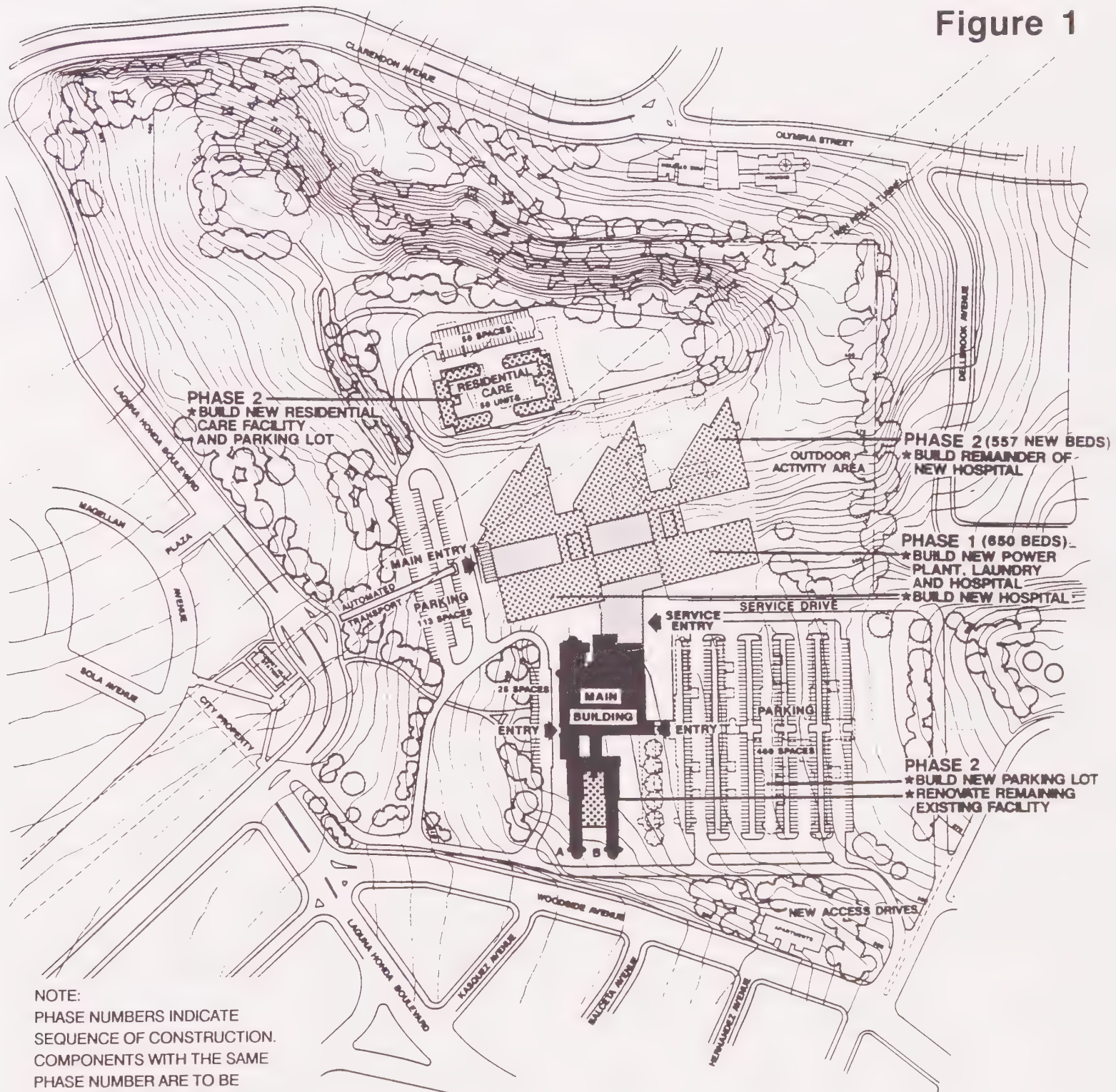
In the next few decades, San Francisco will face the challenge of fulfilling the expectations of a fast-growing elderly and disabled population with increasingly acute health needs.

To continue the City's policy of high quality long-term care into the 21st Century, it is necessary to replace Laguna Honda Hospital with structures that meet current standards for functionality and operating efficiency. Serious physical deficiencies put the Hospital at risk of losing Federal and State reimbursements, which would lead to outright closure. Laguna Honda presently operates under waivers from State and Federal authorities — waivers that may be revoked at any time.

This Report proposes a \$548.4 million Bond Program to finance a replacement facility to meet current standards for hospital design, construction, building systems, and seismic safety in a cost-effective manner. The recommended Project replaces the current patient care wings and scattered utility buildings with a greatly more accessible, efficient, integrated, and functional new building. The project provides 1207 patient beds and a residential care facility of 50 units (100 beds). It remodels the two existing administrative wings while preserving their architectural merits. (See Figure 1.)

The recommended Project is the outcome of a combined effort by Hospital management, the Department of Public Health, an extensive group of community advisors, the Department of Public Works, and a group of planning and architectural consultants. This planning team developed a comprehensive and farsighted Facilities Master Plan for Laguna Honda, upon which this Bond Program Report is based.

Figure 1



NOTE:
PHASE NUMBERS INDICATE
SEQUENCE OF CONSTRUCTION.
COMPONENTS WITH THE SAME
PHASE NUMBER ARE TO BE
CONSTRUCTED CONCURRENTLY.



PROPOSED REPLACEMENT PROJECT

MASTER PLAN • LAGUNA HONDA HOSPITAL

CITY & COUNTY OF SAN FRANCISCO

HEALTH CARE NEEDS OF A GROWING ELDERLY AND DISABLED POPULATION

Demographic projections indicate a fast-growing elderly population and citizens with increasingly acute health care needs over the next 30 years. These changes have a particularly strong impact on Laguna Honda Hospital because much of this population is unable to afford private care and no other long-term care facility — public, private, or nonprofit — in the City provides a significant number of beds for the indigent.

Laguna Honda Hospital already operates at full capacity. Most patients require "heavy care" — nursing assistance for the simplest activities of every day living: eating, bathing, toileting, and dressing. The current average age of Laguna Honda's patients is 69 for males and 77 for females.

More Serious Needs Projected

In San Francisco, the proportion of citizens in the over-60 age group is about twice the national average. It is estimated that 15% of these elderly are in need of long-term care because they are disabled by chronic disease and need assistance with daily living.

Among San Francisco residents in need of long-term care, the problems of multiple chronic illnesses have been compounded by those of communicable diseases (e.g., treatment-resistant tuberculosis, HIV-related diseases) and the effects of substance abuse. As a result, the Hospital expects the average acuity of patients to continue escalating.

Over the next 30 years, the total number of San Francisco residents over age 60 is projected to increase by 43% from the present 165,600, to 236,900 in the year 2020. As a percentage of the City's total population, the over-60 group will rise from 23% to 35%.

Greater Dependence on Public Care

Many of these residents will need to rely on the public sector to fund their health and residential care. National census and State of California data show that about one-third of the City's elderly live alone, and almost one-fifth of the aged and disabled currently receive governmental aid and are eligible for MediCal reimbursement.

Although Laguna Honda Hospital operates 1147 beds, its capacity is already strained by a 97% occupancy rate.

Core Support for City Network Needed

Laguna Honda represents a critical component of San Francisco's health care network. It provides by far the bulk of long-term care services on which generations have depended. Reducing or eliminating Laguna Honda's bed capacity without replacement would cause the whole health care system to "back up" severely, and leave many elderly and disabled people stranded without support for daily living.

PHYSICAL DEFICIENCIES POSE RISK OF CLOSURE

Laguna Honda Hospital is located on a beautiful, hilly 64-acre site at the approximate center of San Francisco. The site is bounded by Laguna Honda Boulevard, 7th Avenue, Clarendon Avenue, and Woodside Avenue. It is located across Laguna Honda Boulevard from the Forest Hills Muni station.

On this site are a main building with wings that house administration and patient care wards, scattered utility buildings, and Clarendon Hall. The main building and Clarendon Hall are situated at opposite sides of a natural valley, called Clarendon Valley. The utility buildings are clustered in the north end of the valley.

Because of their physical deficiencies, the facilities at Laguna Honda are operating under special waivers from State and Federal regulatory agencies. These waivers can be revoked at any time, which would eliminate Federal and State reimbursements, thus shutting the Hospital down.

Obsolete Hospital Design

Laguna Honda's patient care wards do not meet current Federal standards. The hospital's 30-bed open ward structure is no longer permitted for reasons of infection control, patient management, and patient dignity and privacy.

Unless the Hospital remodels and reconfigures the space to house no more than four patients in a bedroom, it is at risk of losing reimbursement allowances (MediCal and Medicare) that finance operations. The Hospital is currently operating under a year-to-year waiver, with the possibility of revocation by the State.

Aged Facilities

The principal patient care buildings at Laguna Honda are between 65 and 80 years old. These buildings have outlived their useful lives and cannot cost-effectively accommodate modern health care technologies. Most have not had major upgrades in the last 30 years, although almost all other health care institutions in the Bay Area have undergone several expansion and remodeling projects in that time. Deteriorated buildings and building systems demand greater maintenance and raise operating costs.

Current Code Standards

The existing facilities are out of compliance with current disability access, health, building, and structural codes. For example, the hospital does not meet current fire exiting requirements or minimum requirements for seismic resistance. Current codes mandate mechanical ventilation, filtration, and air conditioning of patient spaces for safety and comfort. None of Laguna Honda's patient wards is mechanically ventilated.

"Landslide" Effect

Addressing these deficiencies will require major remodeling of the facilities at a minimum. But any remodeling over and above maintenance and repair will have a disruptive and costly effect. Major remodeling of any area will trigger a landslide of mandated upgrades to all building systems servicing that area to make them conform to current codes.

PLANNING GUIDELINES AND ALTERNATIVE SOLUTIONS

In 1987, a citizens' Blue Ribbon Committee submitted a report, accepted by the City and County of San Francisco, that re-affirmed the mission of Laguna Honda Hospital "to provide a comprehensive and coordinated range of services for the elderly and disabled of San Francisco in need of supervised long-term care for health problems."

This re-affirmation of City policy served as the basis for the first planning guideline for developing and evaluating means to continue the mission. In addition, the planning team followed three more guidelines that also pointed to the desired benefits. All four guidelines are described below:

1. Policy Commitment to Long-Term Care.

- The project would reflect San Francisco's commitment to providing a central core of long-term care services for the elderly, disabled, and indigent.
- Construction would take place in a timely manner.
- The project would provide flexibility for future expansion as health care policy and the funding environment change.

2. Functionality and Operational Efficiency

- Construction would aim to minimize disruptions to ongoing service delivery with no decrease in service (no loss of beds) during construction.
- The completed project would improve functionality and operational efficiency.

3. **Neighborhood Compatibility**

- The project would meet with neighborhood approval.
- Where possible, the project would preserve the architectural character of the existing buildings
- The project would minimize impacts on its environment.

4. **Cost-Effectiveness**

- The project would represent a long-term cost-effective solution.

Alternative Solutions

The planning team had first considered a full spectrum of options, from renovation without new construction to completely new construction on a different site (or sites). No alternative site offered the advantages of the current site: central geographic location, plentiful access by public transportation, an established and accepted presence, economies of scale, and the opportunity to preserve some of the existing building in consideration of the value neighbors, and San Franciscans, have placed on its architectural features and historic standing.

In addition to being less desirable, none of the alternatives met all the Hospital's needs, including that for space. They also presented potentially contentious issues of ownership, land use jurisdiction, and environmental impact that would make timely relocation extremely difficult.

Financial comparisons provided further support that maintaining the Hospital on the current site is also the most cost-effective solution.

Simple renovation to create 4-bed rooms, without new construction, reduces capacity by almost 50% and leads to an unacceptable increase in per bed operating costs. Furthermore, this reduction in capacity displaces patients without providing alternative care. (See Appendix A, Renovation with No New Construction.)

Complete replacement of all facilities was judged unnecessary because partial replacement yielded similar benefits at lower cost while also retaining some of the architectural character and warm "feel" of the existing facilities.

The results of the team's deliberations were three alternatives. Specific evaluation criteria were developed and used to compare these three alternatives. (See Figure 2, "Laguna Honda Hospital Replacement Project, Comparison of Alternatives.") Of the three, Alternate C, a Two-Phase Replacement, met the planning guidelines and evaluation criteria best and was chosen to be the recommended Project for this Bond Program Report. (See Appendix A for description of Alternates A and B.)

Figure 2

COMPARISON OF ALTERNATIVES

EVALUATION CRITERIA	ALTERNATES		
	A Renovation with Minimum New Construction	B Multi -Phase Replacement	C Two-Phase Replacement PROPOSED PROJECT
Construction Time	11-1/2 Years	7-1/2 Years	6 Years
Estimated Completion Date	Jan. 2009	Jan. 2005	July 2003
Functional/Operational Efficiency	Poor	Good	Very Good
Disruption to Ongoing Operations	Maximum	Minimal	Minimal
Future Expansion & Flexibility	Poor	Good	Good
Loss of Beds During Construction	Approx. 120	None	None
Neighborhood Compatibility and Acceptance	Poor	Poor	Very Good
New Site Roadways Required	Minimal	Extensive	Minimal
Estimated Project Cost: 1992 Dollars	\$377.3 m	\$344.4 m	\$332.6 m
Estimated Project Cost: Escalated Dollars	\$759.8 m	\$574.0 m	\$548.4 m

RECOMMENDED PROJECT: TWO-PHASE REPLACEMENT

The recommended Project creates greatly more efficient, integrated, and functional new facilities in two interdependent phases of construction. A new hospital building will be centrally located in the Clarendon Valley on site, as shown in Figure 1, "Laguna Honda Hospital Replacement Project."

Altogether, the recommended Project provides a total of about 900,000 new square feet for patient care and support services, 1207 new patient beds -- 60 more than present -- and a new 50-unit residential care facility with two beds per unit. Given the time required for planning, design, and mandated agency reviews, construction is estimated to begin in July 1997, and to be complete by July 2003. Based on this schedule, the total cost of the Project over an eleven-year period is estimated at \$548.4 million escalated dollars.

Phase One

The first phase of new construction provides the first part of a new hospital building to accommodate 650 patients, plus a replacement power plant, laundry facility, and underground utility tunnel. The total area of new construction is about 442,000 square feet.

When this is complete, patients from Clarendon Hall and four hospital wings will relocate into the new facility. Clarendon Hall and the existing power plant, laundry, and a bridge structure are demolished to clear the way for Phase Two.

In this configuration, the Hospital can maintain services temporarily, but not permanently. Many critical support functions must pass through temporary connecting tunnels, and nearly half the patient beds must remain in open wards in deficient wings of the existing building until Phase Two is complete. By itself, Phase One cannot fulfill the goals of the recommended Project.

Phase Two

The second phase adds approximately 424,000 square feet to the new hospital, and provides 557 more patient beds. Simultaneously, about 141,000 square feet of the remaining hospital -- the front part of the Main Hospital and Wings A and B -- are renovated for administrative and support departments and integrated into the new facility. A new 50-unit two-bed per room Residential Care Facility is constructed on the former site of Clarendon Hall.

All patients from the remaining existing hospital wings move into the new facility upon completion. Administration and support services return to newly renovated space. The vacated hospital wings are then demolished, and new surface parking located closer to patient care areas is developed in its place.

Although not part of the recommended Project and not recommended by the Master Plan at this time, the Project allows for a possible future third phase of construction to expand capacity for the City's projected increase in demand for long-term care beds.

Recommended Project Best Meets Planning Guidelines

Of the many alternatives considered, the recommended Project best meets the planning guidelines for a facility that would enable San Francisco to maintain its commitment to provide long-term, comprehensive health care and residential services into the 21st Century.

1. **Commitment to Long-Term Care:** The recommended Project results in new patient care areas that meet Federal and State standards for hospital design, building systems, and seismic safety. The two-phase approach provides the shortest time to completion and ensures continuity of care and the most timely feasible alternative to existing facilities.

The recommended Project provides an increase of 60 skilled nursing and 100 residential care beds at Laguna Honda Hospital to address known demand, and allows for further expansion in the future as health care policy and funding dictate. Other San Francisco facilities may also be expected to provide additional long-term care in the future.

2. **Functionality and Operational Efficiency:** The two-phase approach ensures continuous health care delivery by preventing any department from being put out of service during construction. At all times, new construction is completed before existing buildings are demolished, ensuring that no one is displaced.

At completion, the recommended Project provides an up-to-date facility offering greatly improved accessibility, efficiency, integration, and functionality for better care of patients.

3. **Neighborhood Compatibility:** The recommended Project has neighborhood acceptance. Its location inside Clarendon Valley blocks no views despite being a seven-story building. Furthermore, it requires minimal new service roads and no changes in circulation patterns, thus minimizing impacts on traffic in the Hospital area.

4. **Cost-Effectiveness:** The recommended Project is the least costly of the feasible options. When escalated to the mid-point of anticipated construction (when actual dollars are, on average, paid out), the total cost of the recommended Project is estimated at \$548.4 million over ten years. This estimate includes all costs of construction, consultants, studies for the Environmental Impact Report, inspection, testing, permits, bond issuance, and management. It is \$211.4 million less than Alternate A, and \$25.6 million less than Alternate B.

Moreover, the Per Bed construction cost in 1992 dollars is \$225,000. This figure falls in the middle of the range of such costs for comparable facilities, considering the acuity of patient needs, local cost indexes, and regulatory requirements.

Because Laguna Honda is already fully functional, the proposed Project does not incur substantial new staffing and operating costs, short-term or long-term. Due to forecasted changes in MediCal reimbursement rates, operating subsidies from the General Fund may be reduced.

RE-AFFIRMING SAN FRANCISCO'S 125-YEAR HISTORY OF CARE

The recommended Project represents the best option for enabling San Francisco to provide a core of comprehensive and coordinated services for the elderly and disabled in need of supervised long-term health care.

It meets the criteria of supporting longstanding public policy, enhancing operational efficiency and functionality, achieving neighborhood compatibility, and accomplishing all these cost-effectively.

With the proposed new Laguna Honda Hospital facility, San Francisco can re-affirm its commitment to a 125-year history of care for its elderly and disabled. This Two-Phased Replacement of Laguna Honda Hospital will reassure San Franciscans that a tradition of health care uninterrupted for over a century will continue into the 21st Century.

Section II. Health Care Needs of A Growing Elderly and Disabled Population

Demographic data indicate that the population of elderly and disabled requiring heavy care in San Francisco will increase quickly over the next 30 years. Moreover, their health care needs are expected to grow more acute as they become more dependent on the public sector for services.

These changes already strain the existing health care network. They have a particularly strong impact on Laguna Honda Hospital because it is the only long-term care facility — public, private, or nonprofit — in the City that provides a significant number of beds for the indigent.

Already, Laguna Honda Hospital operates at full capacity. And most patients require "heavy care" — nursing assistance for the simplest activities of every day living: eating, bathing, toileting, and dressing.

GROWING POPULATION WITH INCREASINGLY ACUTE HEALTH NEEDS

Over the next thirty years, the number of residents in the City and County of San Francisco over age 60 is projected to increase by 43% from the present 165,600, to 236,900 in the year 2020. The over-60 group will rise as a percentage of the City's total population as well, from 23% to 35%.

Many of these residents will need to rely on the public sector to fund their health and residential care. National census and State of California data show that about one-third of the City's elderly live alone, and almost one-fifth of the aged and disabled currently receive governmental aid for the aged and disabled, and are eligible for MediCal reimbursement. It is estimated that 15% of the City's elderly are in need of long term care because they are disabled by chronic disease and need assistance with the activities of daily living.

In recent years, other groups have joined the elderly in relying on public health facilities. The rise of diseases, such as those related to HIV infection, and more widespread substance abuse have compounded traditional health problems.

The profile of patients treated at Laguna Honda reflect these burgeoning demands. The over-60 age group continues to comprise the majority (75%) of Laguna Honda's residents. Multiple chronic illnesses and increased acute episodes are common among them. Increasing numbers of patients have multiple diagnoses, including Alzheimer's disease and other mental disorders, as well as numerous physical problems. This trend has been made worse by specific communicable diseases (treatment-resistant tuberculosis, HIV related

diseases, etc.) and substance abuse among a younger population. The Hospital projects that the average acuity of patients will continue to increase.

125 YEAR COMMITMENT TO LONG-TERM HEALTH CARE

Laguna Honda Hospital was originally built in 1866, and rebuilt after the 1906 earthquake, as a shelter for San Francisco's indigent homeless. The passage of the Social Security Act drastically changed the Hospital's function by enabling more healthy seniors to stay at home.

At that time, Laguna Honda's programs were re-oriented to provide acute medical and long-term skilled nursing care to the City's population unable to afford such care elsewhere. Those programs continue to this day, with the primary emphasis on long-term skilled nursing care for the elderly and disabled.

Laguna Honda Hospital has provided the bulk of such care within San Francisco's health network. It is currently licensed to operate 1457 beds, but constraints presented by its physical facility limit operational capacity to 1147 beds. The Hospital operates at capacity (97%), and usually has a waiting list of 200 people.

As recently as 1986, a Blue Ribbon Committee studying San Francisco's needs for long-term care in the year 2000 re-affirmed the Hospital's mission "to provide a comprehensive and coordinated range of services for elderly and disabled residents of San Francisco in need of supervised long-term care for health problems."

SERVICES OF LAGUNA HONDA HOSPITAL

Of Laguna Honda Hospital's 1147 operational beds, the vast majority, 1008, are devoted to long-term skilled nursing facility (SNF) care. The remainder are distributed as follows: 104 SNF beds for Hospice/AIDS Care, Rehabilitation, and Alzheimer's and Related Diseases; 20 beds for Acute General Medicine; 15 for Acute Rehabilitation.

To complement its inpatient care program, Laguna Honda Hospital provides a wide spectrum of specialty care medical clinics. The medical specialties of Ophthalmology, Dermatology, Podiatry, Gastroenterology, and Psychiatry experience a high volume of use, as do the General Surgery, Plastics, Orthopedics, Genito/Urinary and Ear/Nose/Throat clinics.

An Adult Day Health Care (ADHC) program currently has capacity for 60 people. The program serves older people who have physical or mental impairments that make independent living difficult. It also provides day-time respite to caregivers unable to accompany individuals on a full-time basis. The

program includes the transportation of frail, elderly and disabled participants to and from their homes. A multilingual staff caters to the diverse cultural backgrounds of program participants.

Laguna Honda Hospital expects the intensive use of specialty care medical clinics to continue through the coming decades. The Adult Day Health Care program is projected to continue at current capacity, with greater emphasis on activities for individuals to serve the increasing number of patients with Alzheimer's disease.

A Senior Nutrition Program (SNP) occupies the dining room at Clarendon Hall. The program is designed to ensure that the nutritional needs of older adults are met, and provides a setting that encourages social interaction. The Senior Nutrition Program is projected to continue at its current capacity of 45 to 50 participants.

Filling Gaps in the Continuum of Care

During the detailed planning process, described in Section IV of this Report, a minimum space program for a Laguna Honda Hospital Replacement Project was adopted. The program calls for 1207 hospital beds, or 60 more than presently operating, to fulfill the current known need. Thirty of the new beds are to be available for AIDS patient care. (See Appendix F for Bed Distribution by Type.)

The space program also calls for a Residential Care for the Elderly (RCFE) program. The Department of Public Health and community advisors identified a need for this type of facility to complement the continuum of services provided in the community. The licensed RCFE is designed for both ambulatory and non-ambulatory residents. Fifty units, housing two residents each, are included. Each unit contains a bath and kitchenette. The RCFE is to assist residents in learning and maintaining daily living skills, and provide a transition between home and institution.

A Senior Center is included in the program with space for 50 participants. The Senior Center will provide space for the Senior Nutrition Program and be available for social, educational, recreational, and cultural programs appropriate to elderly who are still independent and ambulatory.

A Child Care Center is also planned. Intended to serve the staff of the Laguna Honda Hospital, as well as other City employees, the Center will be licensed to care for children between the ages of 2 and 6.

Although not included in the minimum space program and not included in the proposed Project, the planning team recognizes the potential need for another 390 beds at the site in the future. They made allowances for this possibility in planning.

San Francisco Context

In San Francisco, Laguna Honda Hospital offers a comprehensive range of long-term health care services. It is the chief provider of those services in San Francisco, serving by far the most patients of any single institution.

To the extent that Laguna Honda is unable to meet the health care needs of the growing elderly and disabled population, additional burdens will be placed on private and nonprofit institutions as well as the other branches of the City's public health care system: San Francisco General Hospital (SFGH), the Division of Mental Health, Community Public Health, and the Central Office.

It is not cost effective for SFGH to take care of patients who do not require acute care services. At times, San Francisco General Hospital accommodates patients awaiting space at Laguna Honda by using beds designed for acute care patients, consequently receiving a substantially lower reimbursement rate for those beds.

With the predicted dramatic increase in the elderly population and the rise in numbers of younger people who need long-term care, a Citywide long-term care plan will be needed in the future. Laguna Honda Hospital, which has been the heart of San Francisco's long-term care services for 125 years, will necessarily continue to play a key role in that plan.

Section III. Physical Deficiencies Pose Risk of Closure

Laguna Honda Hospital's tradition of quality long-term care has withstood the test of time, but its physical facilities have not. The overriding problem with the entire building complex is an obsolete hospital design that lacks substantial compliance with current health, safety, and/or building codes. It also lacks the flexibility to be adapted to meet those codes. Furthermore, because of their age, most of the building systems are in poor repair and cost increasing amounts of money to maintain. Finally, the buildings' organization and extended interior layout prevent efficient operations by current standards.

These physical deficiencies put the Hospital at risk of losing State and Federal reimbursements, which would effectively close the Hospital. Laguna Honda presently operates on a waiver that is renewed annually and that can be revoked at any time.

To ensure that Laguna Honda can carry San Francisco's longstanding commitment to long-term health care into the 21st Century, renovations and new construction are essential.

SITE ASSESSMENT

The existing Laguna Honda Hospital is located in a 64-acre site on a prominent hillside location in the center of San Francisco. The Hospital consists of three sets of buildings: the large main Hospital; a group of separate support buildings; and Clarendon Hall. The main Hospital and Clarendon Hall are situated on opposite sides of Clarendon Valley, which is in the middle of the site, as shown in Figure 3, Existing Site Plan. Support buildings are clustered in the eastern end of the Valley.

Landscaping

Although the Hospital is of a much larger scale than adjacent residential structures, the extensive vegetation surrounding it creates a park-like setting and provides a visual buffer that makes it much less visible to its neighbors. This landscaping and the hospital's sensitive location nestled into the hillside make Laguna Honda's presence acceptable to the neighboring communities.

Figure 3



EXISTING SITE PLAN

KAPLAN McLAUGHLIN DIAZ ARCHITECTS & PLANNERS
11 41518 00000 0000
GORDON H. CHONG & ASSOCIATES
GEOLOGICAL SERVICES, INC.

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Traffic

The site is well served by public transportation and has adequate utility capacity. However, traffic circulation within the steeply sloped site is currently difficult, with truck and service traffic occasionally blocking the movement of visitors and staff. Pedestrian traffic is not adequately separated from vehicular traffic, posing safety problems. Access to the site from the intersection of Laguna Honda, 7th Avenue, and Dewey Boulevards, and from Forest Hills Muni Station is complicated and congested.

Parking

Several surface lots provide parking at Laguna Honda. The number of spaces meets City codes and is also generally adequate with respect to functional demand. The distribution of spaces is not ideal, however, because they sometimes create long walking distances.

Zoning

Several buildings on the existing Laguna Honda campus exceed current bulk restrictions. Because they were already in existence when the applicable zoning regulations were enacted, they have been allowed to remain. Replacement buildings or major additions will require review by the City Planning Commission to grant a conditional use permit for the property.

Architectural Quality

Laguna Honda does not have landmark status but it does have features that necessitate special reviews if altered. According to the City of San Francisco's Architectural Survey, portions of the main building are considered to have "unique visual features of interest" and unusual style, and the building is seen as important in relationship to its setting. (See Appendix D, p. D-5.)

The original Laguna Honda building was designed in a Mediterranean, neo-romanesque style with massive pastel stucco walls, clay tile roofs, and terra cotta copings and details. Architecturally, many of the major common spaces at the hospital were thoughtfully designed and embellished with decoratively painted tiles.

Therefore, although the building itself does not rate highly in overall architectural quality or design excellence, removal of the building or alterations to it will necessitate some review by the Landmarks Preservation Advisory Board, the City Planning Department, and the City Planning Commission.

PHYSICAL DEFICIENCIES

The principal buildings at Laguna Honda Hospital in which patient care is provided are between 65 and 80 years old. They were designed and built for purposes and with technologies that are vastly different from those today. No

building except Clarendon Hall has had major upgrades in the last 30 years, although almost all other health care institutions in the Bay Area have undergone several expansion and remodeling projects in that time period.

Laguna Honda's physical deficiencies fall into three groups: obsolete design, deterioration from advanced age, and code deficiencies. For example, the roofs on every major building on campus require replacement in the near future, and all of the buildings except the garage and greenhouse will require asbestos removal. Costs for these maintenance items alone will amount to approximately \$10 million dollars.

Moreover, any addition or major renovation to the existing hospital will automatically trigger the need to upgrade the building systems involved, which will add substantially to costs and the disruptive impact of such work.

The following review of deficiencies is organized by building.

Main Laguna Honda Hospital Building

The 534,000 square foot main Laguna Honda building is four to six stories tall as it steps up its hillside site. It consists of eleven nursing wings plus ancillary service areas and a main administrative wing. The oldest part of the complex was built in 1926 of reinforced concrete and some structural steel. Many interior walls are of unreinforced clay tile construction. Two wings were added in 1928, and the last two in 1938-40, both using reinforced concrete construction. Major renovations last took place in 1959-60.

Code Deficiencies: The building does not conform to current structural codes which demand a much higher level of seismic resistance than was required at the time of original construction. If major renovation, addition, or demolition takes place, full evaluation and reconstruction of the structure would be required to meet current requirements. Even if no work were undertaken, the Office of Statewide Health Planning and Development, as part of its program to review and upgrade all hospital structures in the State, may soon require a major upgrading of the building's lateral restraint systems. This work could be extremely disruptive and expensive.

None of the other building systems is in conformance with current codes. There is no mechanical ventilation or air conditioning system as is required in patient care areas by current codes. Existing main boilers are past their useful lives and are not energy-efficient.

Electrical equipment is generally adequate, but there is no additional capacity and there are numerous minor code violations that must be rectified. Many systems, such as the fire alarm, are out of date, past their useful lives, and should be replaced. Present-day disabled access codes are not met, and the building does not conform to current fire exiting requirements.

Obsolete Design: Laguna Honda's patient care wards do not meet current Federal standards. The hospital's 30-bed open ward structure is no longer permitted for reasons of infection control, patient management, and patient dignity and privacy.

Unless the Hospital remodels and reconfigures the space to house no more than four patients in a bedroom, it is at risk of losing reimbursement allowances (MediCal and Medicare) that finance operations. The Hospital is currently operating under a year-to-year waiver, with the possibility of revocation by the State.

In addition, the main Laguna Honda hospital suffers from an inefficient and functionally inflexible building configuration. The very long, narrow wings that protrude from the central spine each contain two 15-bed sections of a 30-bed open ward, plus a few private or semi-private rooms. The wings cannot be efficiently remodeled to meet code requirements of a maximum of 4 beds per room. Such remodeling would reduce the overall number of beds by nearly 50%, creating operationally unacceptable nursing units, and incurring unaffordable per bed operating costs. (See Appendix A, Figure 12.)

The internal circulation system of the hospital, elevator locations, and long central corridors, prevent efficient distribution and flow of materials and staff movement. Long travel distances and inappropriate department locations create management and staffing difficulties and lead to still further operational inefficiencies and costs.

Clarendon Hall

This 118,000 square foot, three-story building, built in 1909, is the oldest structure on the campus. It was substantially remodeled in 1958 and 1978, and houses 170 skilled nursing beds, the Senior Nutrition Program, and the Adult Day Health Center.

Similar to the main hospital building, Clarendon Hall does not conform to current structural codes, which demand a much higher level of seismic resistance than was required at the time of original construction. The Office of Statewide Health Planning and Development, as part of its program to review and upgrade all hospital structures in the State, may soon require a major upgrading of the building's lateral restraint systems.

None of the other building systems conforms to current codes. Earlier studies found the cost of seismic and other system upgrades to be nearly the cost of new construction. In addition, the inefficiencies of managing a separate building of skilled nursing facility beds increases overall operating costs.

Support Buildings

Five separate buildings totalling 133,000 square feet house support for Laguna Honda Hospital: the Laundry, Boiler Plant, Bridge Structure, Craft Shop, Greenhouse, and Garage. None of them is in good repair. The Laundry Building, Boiler Plant, Bridge Structure, Craft Shop Building, and Garage all require repairs to meet minimum code requirements. Due to high humidity in the Laundry building, structural steel joints have rusted and make the structural integrity questionable.

Section IV. Planning Guidelines and Alternative Solutions

Over the last decade, a series of studies have aimed to find ways to ensure that Laguna Honda Hospital serves the present and future needs of San Franciscans for long-term care. These studies culminated in a Facilities Master Plan that developed planning guidelines, three alternatives, and criteria for evaluating them.

The guidelines point to the desired benefits of the solution: upholding the City's longstanding commitment, functionality and operational efficiency, neighborhood compatibility, and cost-effectiveness.

The alternatives were: 1) Alternate A: Renovation with Minimal New Construction, 2) Alternate B: Phased Replacement, and 3) Alternate C: Two-Phase Replacement.

Of the three, Alternate C met the criteria best, and is unanimously endorsed by the planning team of representatives from the community, Hospital management, Departments of Public Health and Public Works, and consultants.

PLANNING HISTORY

The City of San Francisco has been concerned about the status of the existing facilities at Laguna Honda Hospital for many years. Starting over eleven years ago, several focused studies and analyses aimed to identify options for remedying the hospital's deficiencies. (See Appendix D for listings of the Bibliography and Source Data.)

For example, a detailed analysis by the San Francisco structural engineering firm of H.J. Brunnier, begun in the early 1980s, highlighted the necessity for a multimillion dollar structural upgrade that would entail shutting down portions of the facilities as the work progressed. A separate effort was undertaken by a citizens' Blue Ribbon Committee established by Mayor Feinstein in March 1986 and chaired by Dr. Edward Chow. This Committee generated a report that underscored the need to develop a more detailed facilities master plan for Laguna Honda Hospital before the anticipated surge in San Francisco's over-60 population occurred around the year 2000.

Facilities Master Plan

In 1989, in response to the Blue Ribbon Committee's recommendations, the City and County of San Francisco and the administration of Laguna Honda Hospital directed San Francisco architects Kaplan/McLaughlin/Diaz, in association with Gordon H. Chong + Associates, to undertake a detailed Facilities Master Plan that would incorporate information developed in previous studies.

The specific goal of the Facilities Master Plan was to identify the best overall direction for developing, improving, or replacing Laguna Honda Hospital facilities so that the Hospital can continue providing long-term care services through 2015.

Given the size and history of Laguna Honda, its importance to the City's urban environment as well as to its health care system, and the diversity of groups affected by the institution and its campus, the facilities master planning effort was structured to include input from a wide spectrum of community groups and representatives, as well as planning and health care professionals. (See Appendix C for a complete listing of participants.)

The planning team initiated a carefully structured, open-ended process. Its aim was to identify a solution that would best serve the long-term health care needs of the community, do so in the most timely and cost-effective manner, be compatible with the neighborhood environment, and meet the potential needs of the future.

The principal steps in this 2-year master planning effort follow. Work during each step was reviewed by professional and community groups in a series of workshops. The Team solicited input, comments, and suggestions which were thoroughly incorporated at each step before proceeding to the next.

1. **Team and Project Organization:** The planning team consisted of a widely representative combination of members from the community, a patient representative, line staff, nursing and medical staff, Hospital administration, Departments of Public Health and Public Works, and consultants.
2. **Assessments of Existing Facilities:** The consultants analyzed the physical and operational needs of existing facilities, reviewed previous studies and documentation, and performed a detailed review of code conformance. They prepared the Facility Assessment Report, which records the results of these analyses as Volume 1 of the Facilities Master Plan.
3. **Space and Functional Program Development:** The consultants prepared a document with detailed descriptions, listings, and discussions of all spaces and functions required for the Hospital as Volume 2, Operational and Space Program, of the Facilities Master Plan. Their analyses used industry standards, adjusted through first-hand reviews with users, administration, and other affected parties. The document identifies space needed to provide services today as well as in the future.
4. **Establishment of Program Priorities:** The Planning Team reviewed the findings developed in Step 3 above, and set priorities to distinguish

programs essential to the effective, ongoing operation of Laguna Honda Hospital from programs with merit that were strongly desired but less essential. The outcome of this effort was acceptance of a minimum space program for Laguna Honda Hospital.

5. **Development of Alternative Physical Planning Solutions:** At this step, the Team generated various planning solutions ranging from minimal internal renovation to complete replacement. The most practical of these were developed in greater detail.
6. **Selection of a Preferred Solution:** The Planning Team selected one solution based on a number of criteria with four general themes: adherence to longstanding City health care policy, functionality and operational efficiency, neighborhood compatibility, and cost-effectiveness.
7. **Preparation of a Final Report:** The final step was preparation of Volume 3, Facility and Site Development Analysis, of the Facilities Master Plan. This report documents the preferred option, the alternatives investigated, and criteria upon which the evaluations were made.
8. **Periodic Reports to the Health Commission and Regular Reports to the Joint Conference Committee.**

PLANNING GUIDELINES

The planning guidelines for developing the alternatives point to four sets of desired benefits. The first set was outlined by the 1986 citizens' Blue Ribbon Committee, which re-affirmed the mission of Laguna Honda Hospital to provide a comprehensive and coordinated range of services for elderly and disabled residents of San Francisco in need of supervised long-term care for health problems. Short descriptions of each guideline follow.

1. **Commitment to Long-Term Care**
 - The project would reflect San Francisco's commitment to providing a central core of long-term care services for the elderly, disabled, and indigent.
 - Construction would take place in a timely manner to ensure continuity in care.
 - The project would provide flexibility for future expansion as health care policy and the funding environment change.

2. **Functionality and Operational Efficiency**

- Construction would aim to minimize disruptions to ongoing service delivery.
- The completed project would improve functionality and operational efficiency.

3. **Neighborhood Compatibility**

- The project would meet with neighborhood approval.
- Where possible, the project would preserve architectural merit in existing buildings
- The project would minimize impacts on its existing environment.

4. **Cost-Effectiveness**

- The project would represent a long-term cost-effective solution.

ALTERNATIVE SOLUTIONS

The planning team considered a full spectrum of options for continuing Laguna Honda's mission. Early in the planning process, the possibilities for relocating the entire hospital as a whole or in 400-bed components were investigated. These investigations found that no other site (or sites) could duplicate the major advantages of Laguna Honda's current location. Furthermore, they found significant obstacles to obtaining and using even those less desirable sites.

The advantages of Clarendon Valley begin with its familiarity. The City already owns the land and the Hospital is an established feature in its environment. Its location in the geographic center of San Francisco maximizes the opportunity for families and friends to visit patients. Plentiful public transportation -- 7 lines converge at Laguna Honda, including Muni Metro -- adjacent to the site further eases any commute for visitors and employees.

Continuing to centralize Laguna Honda's services at Clarendon Valley as opposed to dispersing them across the City yields the significant advantage of economies of scale. Especially during construction, the operational logistics of providing services are patently easier at one location than at several.

Keeping Laguna Honda in Clarendon Valley also offers the opportunity to preserve some of the existing building in consideration of the value neighbors, and San Franciscans, have placed on its architectural features and historic standing.

In addition to being unable to match these advantages, alternate sites investigated in Hunter's Point, Mission Bay, the Presidio, City park land, and abandoned schools presented obstacles of their own. None met all of the Hospital's needs, including that for space. All presented potentially contentious issues of

ownership, jurisdiction over land use, and environmental impact. Furthermore, neighborhood opposition was anticipated at many of them.

Financial comparisons taking these possibilities and the need for orderly scheduling and timely construction into account provided further support that the Clarendon Valley site is also most cost-effective.

Of the planning options considered for the existing site, some were ruled out early in the study. Internal remodeling to create 4-bed rooms without significant new construction reduces bed capacity by nearly 50%. This causes an unacceptable increase in per bed operating costs. (See also Appendix A and Figure 12.) This solution did not meet the planning guidelines and was not pursued further.

Complete replacement of all facilities was judged unnecessary because partial replacement yielded similar benefits at lower cost, and also preserved the image and traditional character of the existing main building.

Constructing a replacement hospital in one complete phase turned out not to be feasible. The location of existing buildings and utility connections blocks construction of any single, large structure in areas contiguous with existing buildings. Instead, construction must take place in stages. New structures must first be built. Then some services and patients can be relocated to them. Vacated facilities can then be demolished to make room for further new construction.

The results of the planning team's extensive studies were three viable alternatives: Alternates A, B, and C. Each was studied in depth. They are briefly described below. Refer to Appendix A for site plans and more detailed descriptions of Alternates A and B.

Alternate A

Alternate A sought to maintain the maximum amount of the existing hospital and to add minimal new construction. In effect, it fills in the space between existing hospital ward wings, building one large hospital wing out of every two smaller wings. This involves multiple phases of work.

Alternate B

Alternate B proposed replacing most of the hospital in four major phases of construction, with the new facility located on the hill northeast of the existing Laguna Honda main building.

Alternate C

Alternate C proposed replacing most of the hospital in two major phases of construction, and locating the new hospital in the central, valley portion of Laguna Honda's existing site.

EVALUATION CRITERIA

A number of key criteria were developed to assist with the comparative evaluation of the three alternatives. Figure 15, presented in Appendix B of this report, contains a summary of how they fared. Following are brief descriptions of how the alternatives compared on each criterion.

Construction Time

Alternate C requires the shortest construction time at 6 years. Alternate A would take 11-1/2 years and Alternate B would take 7-1/2 years to complete. The difference in construction time is directly attributable to the number of sequential phases of work required.

Alternate C can be constructed in only two phases of work while maintaining the hospital in operation at all times. Alternate B requires four sequential phases of work to accomplish the same result, and Alternate A takes eight phases of construction to complete.

Estimated Completion Date

In addition to construction time, each version of the project requires preliminary time for bond approvals, planning, design, and mandatory agency reviews. A detailed Implementation Outline is contained in Appendix K.

Figure 9, Proposed Project Schedule, graphically depicts the estimated time for these activities, which is the same for all the alternates. Therefore, the proposed start of construction is July 1997 for all of them.

When this is added to the estimated construction times, the completion date for Alternate A is January 2009, Alternate B is January 2005, and Alternate C is July 2003.

Future Expansion and Flexibility

The demand for long-term care beds in San Francisco will continue growing. The Laguna Honda Facilities Master Plan recommended that a possible future phase of work, to add another 390 patient beds and 50 more residential care units, be considered. Each alternate concept contained provisions for this expansion.

Both Alternates B and C allow for a possible structure for additional patient care beds at the southeast side of the site. Both present viable options, although those options would have to be approved by the neighborhood. In the two cases, additional residential care units could easily be added on the site of the current Clarendon Hall.

Alternate A, however, does not leave as good an option for future expansion. Because it does not demolish any of the existing hospital, it leaves no contiguous area available for future expansion of patient care. Additional patient care beds would have to be built at a location disconnected from the main hospital, probably on the site of Clarendon Hall.

Beds Lost During Construction

Only Alternate A causes the loss of beds during construction, and the loss is significant at 120, or more than 10% of currently operational beds.

Disruption to Ongoing Operations

Alternate C causes the least disruption to ongoing operations. It calls for construction in areas not currently occupied by existing facilities and would, therefore, interfere with current operations only at the points of connection to the existing structure. No patient services have to be temporarily relocated.

Alternate B requires building on the site of some of the existing hospital wings after those wings are replaced in the first phases of new construction. This brings the remaining construction closer to occupied areas, potentially disturbing patients and their care.

Alternate A is the most disruptive of all. It necessitates vacating two nursing wings at a time, to allow for construction between them and massive upgrading of the existing portions. Nursing wings are located very near one another, so renovation takes place in close proximity to patients.

Functional Efficiency and Flexibility

Alternate C promises the greatest improvements in functional efficiency and flexibility. By replacing all of the patient care and diagnostic and treatment areas of the hospital, it allows new facilities to be designed to meet current standards and planned for maximum operational and staffing efficiency. This is critically important in that staffing costs are the single largest component of the hospital's operating budget.

Alternate B replaces the same areas, but since the bulk of Alternate B is located further from the remaining portions of the existing hospital, the patient, service, and staff circulation between the two is less efficient than the arrangement proposed in Alternate C. Alternate C more closely connects the bulk of the new construction to the portions of the existing main building that remain.

Alternate A, which maintains the form of the existing hospital, results in a very compromised functional arrangement. Given the constraints of the existing structure, patient care areas could never be as functionally well-designed as in new construction. Also, Alternate A keeps the long and, at times, discontinuous central circulation spine of the existing building, perpetuating an inefficient system of staff and service circulation.

Neighborhood Acceptance

Alternate C is the only concept that won neighborhood acceptance. Because it nestles new construction into the hillside inside Clarendon Valley, the large new structure barely alters the perception of the institution to the surrounding community. Alternate C maintains current traffic patterns, obstructs no views, and preserves the park-like atmosphere of Laguna Honda.

Both Alternates A and B require that large components of new construction be located toward the east side of the site, where the new buildings will be much more obtrusive to the surrounding community. At that location, the 6- or 7-story structures protrude significantly above the rooftop of the existing main building, and create an institutional appearance in an otherwise residential area.

New Roadways Required

The location of the new building proposed by Alternate C permits staging areas to be kept in the Clarendon Valley area and requires only modest reworking of service roads thereby minimizing its impact on the Laguna Honda site.

Since Alternate A calls mainly for renovation of existing wings, it too has a minimal impact on roadways and traffic circulation at Laguna Honda.

Alternate B requires a major new service road from Clarendon Avenue that entails significant reworking and disruption of the site.

Estimated Project Cost—1992 Dollars

Alternate C is the least costly in terms of 1992 dollars. The differences are due to the complexity of the different schemes and the extent of site work.

Estimated Project Cost—Escalated Dollars

Alternate C remains the least costly in terms of escalated dollars. The number of sequential phases of construction and the added time that they require magnify project costs and cost differences further. When costs are escalated to the anticipated mid-points of each phase of construction, Alternate A costs \$211.4 million more than Alternate C, Alternate B costs \$25.6 million more.

Figure 4 compares both measures of cost for Alternates A, B, and C.

Figure 4

COMPARATIVE COSTS OF ALTERNATE SCHEMES
(in millions of dollars)

Estimated Costs	Alternate A	Alternate B	Alternate C
1992 Dollars	\$377.3	\$344.4	\$332.6
Escalated Dollars	\$759.8	\$574.0	\$548.4

ALTERNATE C BEST MEETS CRITERIA

Of the three alternatives, Alternate C meets the criteria best. By requiring the shortest construction time, it yields the most timely completion date. It provides good opportunities for future expansion and, during construction, causes no loss of beds and therefore no dislocation of patients.

Alternate C disrupts ongoing operations least. Its proposed juxtaposition of new and remaining buildings offers the greatest improvement in functional efficiency and flexibility.

Alternate C is the only alternative accepted by neighborhood representatives, and this acceptance is due in large part to its minimal impact on the environment. It does not significantly change traffic patterns, and does not call for major new roadways to be constructed.

Finally, Alternate C, because of the relatively less complex construction and site work it involves, is the least costly of the alternatives. Its shorter construction period makes it by far the lowest cost project in terms of escalated dollars.

As a result, the planning team unanimously endorses Alternate C as the recommended Project for this Report.

Section V. Recommended Project: Two-Phase Replacement

The recommended Project creates greatly more efficient, integrated, and functional new facilities in two interdependent phases of construction. Altogether, it provides a total of about 1,039,000 square feet, 1207 new patient beds -- 60 more than present -- and a new 50-unit residential care facility with 2 beds per unit.

Given the time required for planning, design, and mandated agency reviews, construction is estimated to begin in July 1997, and to be complete by July 2003. Based on this schedule, the total cost of the Project is estimated at \$548.4 million escalated dollars over ten years.

DESCRIPTION OF PROJECT

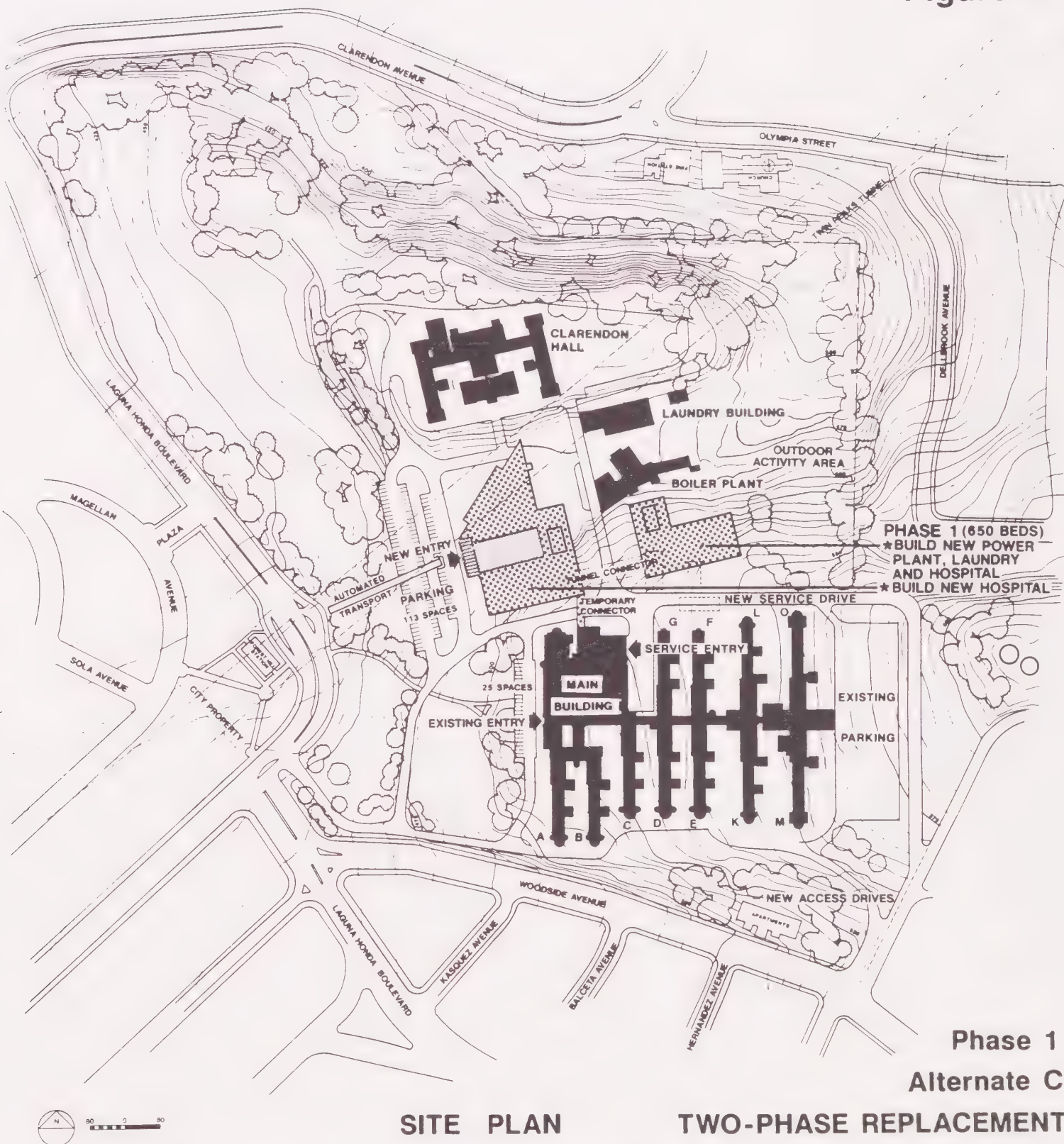
The recommended Project replaces all of the patient care portions of the existing facilities in two major phases of construction, and retains and renovates the existing Main Wing and Wings A and B to house administrative and support services. (See Figures 5 and 6.) This approach keeps the main Laguna Honda facade and entrance to preserve the architectural character and traditional image of the institution while creating new patient care space that meets more stringent technology and code requirements.

Overall, the resulting facilities provide new nursing units and diagnostic and clinic areas designed to modern standards in the most operationally efficient layouts. Spatial allocation is based on typical nursing units of seven 4-bed patient rooms and two single-patient rooms per nursing unit.

The Project's space program is based on the four-patients-per-room maximum allowed by the Federal Health Care Financing Administration for an institution to receive MediCal and Medicare reimbursement. During the design process, considerations for enhancing the quality of nursing care in some units may lead to a configuration with a mixture of four-patient and two-patient rooms. The proposed Project budget provides for this planning refinement.

Altogether, the recommended Project contains a total of approximately 866,000 square feet of new hospital construction, 32,000 square feet of new construction for the residential care facility, and 141,000 square feet of renovated area. Patient care beds total 1207, with another 100 beds in the new 50-unit residential care facility.

Figure 5



KAPLAN McLAUGHLIN DIAZ - ARCHITECTS & PLANNERS
IN ASSOCIATION WITH
GIRKIN H. CHONG & ASSOCIATES
GEOLOGICAL SERVICES, INC.

MASTER PLAN • LAGUNA HONDA HOSPITAL

CITY & COUNTY OF SAN FRANCISCO

Phase 2 Alternate C



Figure 7 summarizes the distribution of area and beds by phase of construction.

Figure 7

**DISTRIBUTION OF AREA AND BEDS BY PHASE OF CONSTRUCTION
(For Hospital Patient Care and Residential Care)**

	Area of New Construction	Area of Renovation	Total Area	Number of Beds
Phase 1 Hospital	442,000 sf	----	442,000 sf	650
Phase 2 Hospital Residential	424,000 32,000	141,000 ----	565,000 32,000	557 100
TOTAL	898,000 sf	141,000 sf	1,039,000 sf	1,307

The proposed Project juxtaposes the new hospital and renovated administrative quarters to create contiguous development of service and storage areas and optimum corridor linkages. This enhances efficiency in the circulation of staff, service, patients, and administration. Detailed block diagrams confirm a functionally efficient building organization, and are included in "Facility and Site Development Analysis," Volume 3 of the Facilities Master Plan.

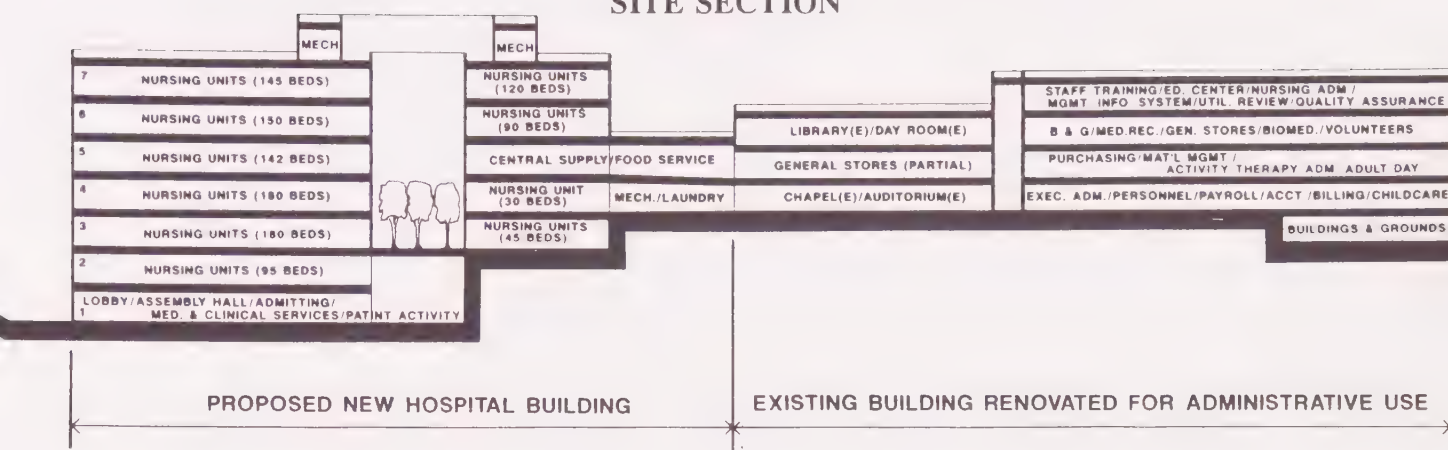
More than 61% of the proposed Project is devoted to skilled nursing and acute care patient areas. About 13% of total space is dedicated to clinical and outpatient services and direct patient medical and nursing support. Slightly more than 10% of total space is taken up by support services and the power plant. Administration occupies 3% of total space. Appendix G shows the distribution of space for all key departments.

Advantages of a Valley Setting

The new hospital building is located to the north of the current hospital, in the central Clarendon Valley and takes full advantage of the valley setting. At its tallest, the new structure has seven stories, but since the building steps down the hillside parallel to the existing hospital, it will appear no taller than the current structure (Figure 8). The valley slopes shield the building from neighborhood view, minimize intrusions into the surrounding community environment, and enhance opportunities for Laguna Honda to maintain its beautiful park-like setting. They also benefit patients by giving them convenient access to outdoor space adjacent to several floor levels.

Figure 8

SITE SECTION



Improved Circulation

The proposed Project develops a new main entry to the hospital while maintaining the current "front door" entry for administration and staff. The public continues to gain vehicular access via the existing main drive from Laguna Honda Boulevard near the corner of Dewey, but an additional visitor access drive, from Woodside Avenue at the southeastern tip of the site, leads directly to a convenient new main parking lot serving the facility (see Figure 6).

A new service drive off Woodside Avenue helps de-congest traffic circulation on site and separates public access from delivery truck traffic.

The Project intends to develop an automated transport facility to encourage the use of public transportation and to help people ascend the steep slope from the bus stops opposite Forest Hills Muni Station to the new main entry.

CONSTRUCTION PROCESS

The recommended Project calls for replacing the main Laguna Honda Hospital in two major, interdependent phases of construction. A description of those phases and their contribution to the number of patient beds and total area follow, along with the project schedule.

Project Phasing

For continuous operation of all Laguna Honda's facilities, the recommended Project divides construction into two phases. Two-phase construction is needed because, for one, the bridge connecting the current hospital to Clarendon Hall must be maintained as long as there are patients housed in Clarendon Hall. Two, the Project must replace the existing old boiler plant and laundry located in the valley area destined for the new building before they can be demolished.

Phase One: The first phase of the project simultaneously constructs two new buildings that would ultimately be joined as a single major new addition (see Figure 5.) The initial separation of the buildings is needed because an existing bridge supplies Clarendon Hall from the current main building. This bridge must be preserved until its function is replaced.

The two structures provide 650 new nursing beds, as well as a replacement power plant, laundry, and some support spaces. A new utility tunnel carries utility services from the new power plant to the new construction and the remaining hospital. Covered walkways temporarily link the new hospital structures to the existing hospital. After completion of the two buildings, the existing bridge, power plant, laundry, and Clarendon Hall are demolished.

This phase of new construction consists of approximately 442,000 square feet of space. The western block of the new building is a 7-story structure. The eastern portion, which contains the power plant, laundry, and some nursing units on top, is 4-stories tall.

Phase Two: The second phase fills in the construction between the two halves of the first phase of work, and adds the remainder of the patient nursing beds and all other support services. (See Figure 6.)

Phase two includes concurrent renovation of about 141,000 square feet of space in the Main Wing and Wings A and B of the existing Laguna Honda building for administrative and support services. The old existing wings act as temporary locations during remodeling.

Finally, a new 50-unit 32,000 square foot residential care facility is built on the site of the existing Clarendon Hall.

This phase contains about 424,000 square feet of new construction for the remainder of the main hospital building. With its 557 beds, it brings the total to 1207 beds, which is the Planning Team's goal.

Potential for Future Expansion

Although not planned or recommended at this time, a third phase of construction could expand the capacity of Laguna Honda Hospital to meet projected increases in the demand for long-term care. The recommended Project allows space for constructing a 390-bed addition at the eastern side of the site, in the new parking lot area, as future health policy and funding dictate.

Phasing Sequence: A step-by-step listing of the activities proposed for each phase of work is presented below:

- Phase 1:
 - 1.1 Construct New Phase 1 Buildings
 - 1.1.1 Relocate small existing Crafts building and Greenhouse.
 - 1.1.2 Relocate power and steam lines to continue service to existing buildings.
 - 1.1.3 Build new access and service drive off Woodside Avenue.
 - 1.1.4 Construct new two-part hospital (650 beds) and support services buildings, including power plant, laundry, and new underground utility tunnel, in Clarendon Valley location.
 - 1.2 Relocate patients from Clarendon Hall and from hospital Wings C, D, G, and O.
 - 1.3 Demolish Clarendon Hall, bridge between Clarendon and hospital, and Wing O; Remove asbestos; demolish Power Plant.
 - 1.4 Relocate administrative and support services from Wings A, B, and Main into vacated Wings C, D, and G.
- Phase 2:
 - 2.1 Construct New Phase 2 Buildings
 - 2.1.1 Construct remainder of new hospital, 557 beds, ancillaries and support services, between the two portions of the Phase 1 new construction.
 - 2.1.2 Construct new Residential Care Facility.
 - 2.2 Build additional parking or staging area at site of demolished Wing O.
 - 2.3 Renovate vacated Main Wing and Wings A, B of hospital.
 - 2.4 Relocate administrative and support services, including Child Care Center and Adult Day Health Care, into renovated Main Wing and Wings A and B.
 - 2.5 Complete new construction and relocate patients from remaining hospital Wings E, F, K, L, and M into new Phase 2 space.
 - 2.6 Demolish Wings E, F, K, L, and M.
 - 2.7 Build additional parking area at site of demolished hospital wings.

PROJECT SCHEDULING

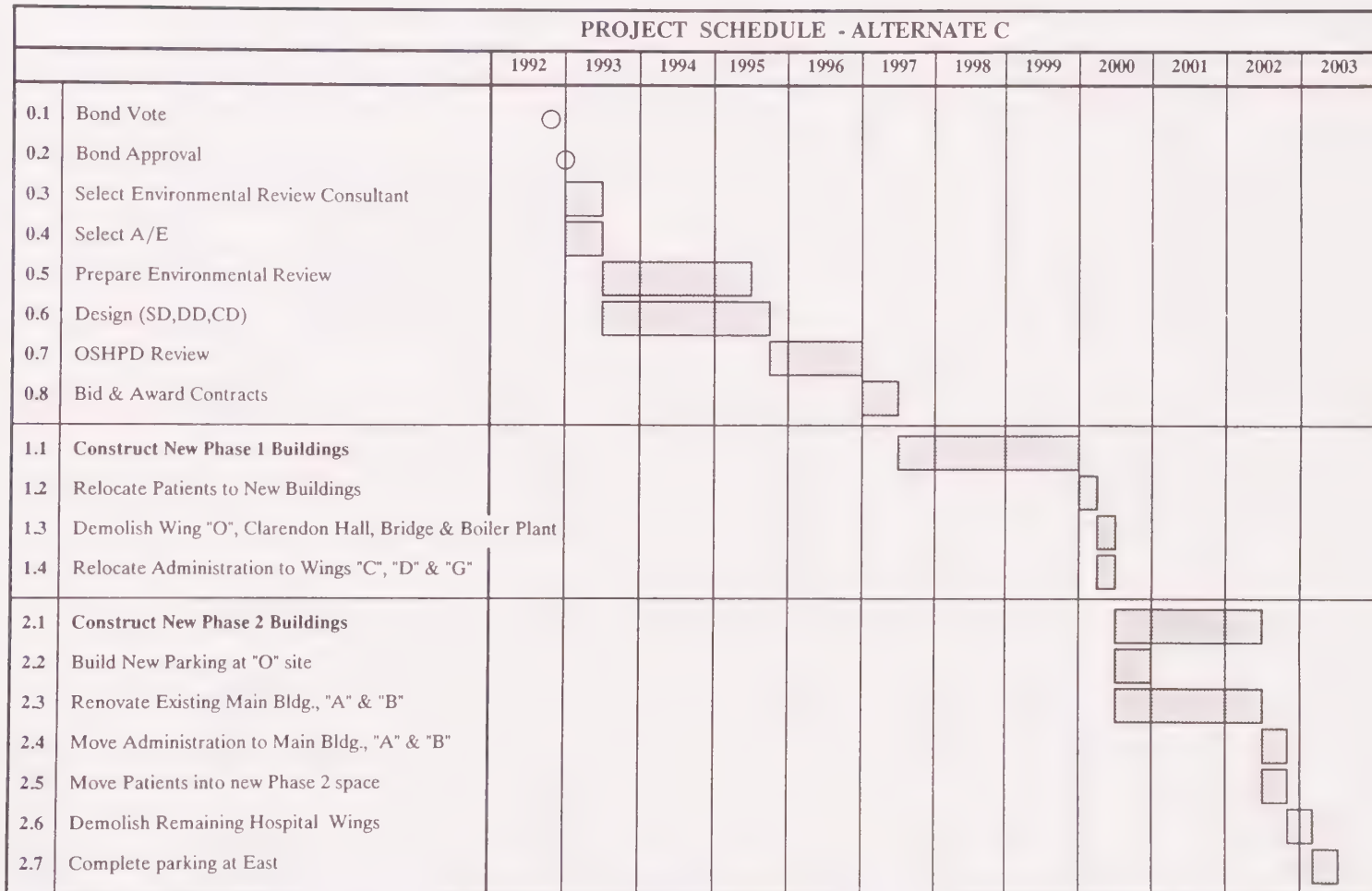
The entire Project is estimated to take 6 years to complete from beginning to end of construction. The initial time required for bond approval, selection of architect, engineer, and consultant for the environmental review, mandated State agency reviews, and completion of the design documents and environmental review required by the City causes the estimated start of construction to be July 1997.

Therefore, all the phases of the Project are estimated to be complete in the year 2003. This is the shortest estimated construction schedule of all the possible alternatives identified and studied.

A graphic schedule for the proposed Project is presented in Figure 9.

Figure 9

PROPOSED PROJECT SCHEDULE



A/E = Architect / Engineer
 OSHPD = Office of Statewide Health Planning & Development

SD = Schematic Design
 DD = Design Development
 CD = Contract (Construction) Document

ESTIMATED PROJECT COSTS

Based on the two-phase concept described above and on the schedule presented in Figure 9, the Project is estimated to cost a total of \$332.6 million in current 1992 dollars and \$548.4 million in dollars escalated to the mid-point of construction. Total estimated Project costs are summarized in Figure 10 following.

Figure 10

ESTIMATED PROJECT COSTS

Cost Categories	Current 1992 Dollars	Escalated Dollars
Construction Costs	\$271.5 m	\$447.7 m
Project Design and Control	\$61.1 m	\$100.7 m
Total Project Cost	\$332.6 m	\$548.4 m

Construction Cost estimates include a design contingency (to cover potential changes in program and services and potential environmental mitigation); a construction contingency (to cover unforeseen site and building conditions); and a mandatory art enrichment allowance. The Construction Cost estimate for this Project is \$447.7 million in dollars escalated to the mid-point of construction.

The Project Cost reflects a Project Design and Control allowance above Construction Cost, allocated for architectural, engineering, construction management, environmental review and other consultants' fees; planning and assessment allowances; asbestos removal monitoring; materials testing; other required permits and fees; and management costs for the Department of Public Works and Laguna Honda Hospital.

The methodology and assumptions used in estimating the Project Cost are outlined in Appendix H. Project Cost is built up from an estimated Construction Cost which, in turn, is based on unit price allowances (estimated costs per square foot) for different project components. The Construction Cost includes new construction; site development, utilities, and parking; renovation of existing structures; and demolition of old structures.

Figure 11 shows the percentage breakdown of Construction Cost.

Figure 11

CONSTRUCTION COST BY MAJOR COMPONENTS

Project Components	Percent of Total Project Cost
New Hospital and Housing Construction	82.4%
Existing Main Building, Wings A and B Renovation	11.1%
Parking, Automated Transport System, Site Utilities and Site Development	1.9%
Existing Facilities Demolition (Except Main Building, Wings A and B)	4.6%
Total Project Cost	100.0%

Per Bed Cost

The Per Bed Cost for the recommended Project falls in the middle of the range of such costs for comparable facilities, considering the acuity of patient needs, local cost indexes, and regulatory requirements. The Per Bed construction cost in 1992 dollars is \$225,000. The quality of construction meets the need to maintain good long-term durability and low maintenance costs.

Impact on General Fund

As a **replacement** program, the recommended Project does not make additional demands on the City's General Fund that are associated with capital **expansion** programs. There are costs associated with major moveable equipment that cannot be funded by proceeds from general obligation bonds. But the proposed Project will not lead to substantially increased staffing and operating costs, short-term and long-term.

Reduced Dependence on General Fund Operating Subsidies: An analysis of the revenues and expenses associated with hospital operations for the recommended Project forecasts a substantially reduced dependence on operating subsidies from the City and County of San Francisco. The pro-forma operating analysis projects a decrease in the operating subsidy from 14.44 percent of total operating expenses for the fiscal year ended June 30, 1991 to 7.00 percent by the fiscal year ending June 30, 2004.

This reduction in the operating subsidy is primarily due to a projection that the annual MediCal reimbursement rate will exceed the general expense inflation rate. This projection, in turn, is based on a realistic and conservative assumption about increases in future MediCal reimbursement rates. A description of the methodology employed and the key assumptions used in developing the pro-forma operating analysis is provided in Appendix I.

Major Moveable Equipment Costs

The cost of moveable equipment needed to furnish and equip Laguna Honda Hospital under the recommended Project must be funded separately from general obligation bond proceeds. This cost is estimated to be approximately \$17,400,000 in year 2003 dollars.

Laguna Honda Hospital will develop a plan to fund these costs separate from the bond issue. Appendix J contains a description of the methodology employed and the key assumptions used in estimating major moveable equipment costs.

Section VI. Into the 21st Century

The Two-Phased Replacement Project recommended in this Report enables the City of San Francisco to fulfill its mission of providing long-term care to its neediest residents, and allows Laguna Honda Hospital to continue a 125-year history of uninterrupted, high quality service.

The proposed Project results in a highly functional, operationally efficient, and cost-effective new long-term care facility. This facility maintains the architectural character and park-like setting of the existing Laguna Honda Hospital.

This recommendation is the culmination of over eleven years of study, the last two of which have been dedicated to the development of a Facilities Master Plan. The planning team for the Master Plan carefully evaluated a wide range of alternatives according to distinct criteria, and found the recommended Project superior. It yields all the benefits sought in a set of four planning guidelines:

1. The Project allows the City to maintain its commitment to long-term care through Laguna Honda Hospital. It provides for an increase of 60 patient and 100 residential care beds to meet known demand, and the possibility of future expansion as health policy and funding dictate.
2. The Project supports and enhances the Hospital's tradition of quality care by making possible an efficient and functional physical organization of activities.
3. The Project is compatible with its neighborhood. The sensitive location of new construction allows Laguna Honda to preserve its park-like setting so much appreciated by San Francisco residents.
4. The Project is cost-effective, and the least costly of feasible alternatives. Total cost is \$548.4 million in escalated dollars over a ten-year period.

As a replacement program, the recommended Project will not incur substantial additional operating and staffing expenditures. According to forecasted changes in reimbursement rates, subsidies from the General Fund for the continued operation of Laguna Honda Hospital may be reduced.

With the proposed new Laguna Honda Hospital facility, San Francisco can re-affirm its commitment to a 125-year history of care for its elderly and disabled. This Two-Phased Replacement of Laguna Honda Hospital will reassure San Franciscans that a tradition of health care uninterrupted for over a century will continue into the 21st Century.

Appendix A. Alternate Concepts

1. MINIMAL RENOVATION WITH NO NEW CONSTRUCTION

The existing nursing wings of Laguna Honda Hospital are extremely long and narrow, approximately 20' x 120' each. The eleven wings contain 31 nursing units, each of which consists of a 30-bed open ward, divided into two tandem 15-bed units, plus a few private or semi-private rooms. For an institution to receive Medicare and Medi-Cal reimbursement (a necessity for Laguna Honda's operating budget), the maximum occupancy allowed in a patient room by current codes and the Federal Health Care Finance Administration is four patients. Laguna Honda's large open wards violate these occupancy regulations and create the most serious threat to the continued operation of the institution.

A detailed study was conducted to evaluate the impact of renovating the current 30-bed open ward configurations into 4-bed patient rooms. The analyses revealed that, due to structural walls and code requirements for clearances and space per bed, only four code-compliant 4-bed rooms could be designed into the space now occupied by each 30-bed ward. This reduces the number of beds in the "ward" part of each nursing unit from 30 to 16, and effectively reduces the total number of patients that can be accommodated by nearly 50%. Even with the two or three other existing single or double rooms on each unit, the renovation would create small inefficient nursing units of about 19 patients each. This would necessitate an increase in staff to patient ratios and, while the total number of beds in the institution would be nearly halved, the operating costs per patient would increase significantly, which is beyond an affordable level.

As part of this analysis, it was estimated that the construction costs for these nursing unit renovations would exceed \$150 per square foot or \$100 million (in today's dollars) for all the nursing wings. The overall project cost was estimated at approximately \$160 million in unescalated 1992 dollars.

Finally, the only way that these nursing wing renovations could be accomplished would be to close down and vacate one wing at a time. This would necessitate eliminating about 120 beds from a 4-story wing to create at least one vacant wing for initial construction. The subsequent work would have to be phased, wing by wing, and would take well over a decade to complete.

This solution did not meet the objectives of the Blue Ribbon Committee, the City, or the Hospital. Even without addressing the myriad other code and functional deficiencies which require remedy, it was clear that this approach was neither cost effective nor timely. It would result in a building which would be functionally and operationally less efficient than the current situation, while providing roughly half as many beds as are needed. This potential solution is not acceptable from a financial and operational perspective.

Figure 12a

EXISTING NURSING WING

Existing Wing configuration has two large 15-bed wards and one to four private or semi-private rooms. Average number of beds per wing is 34.

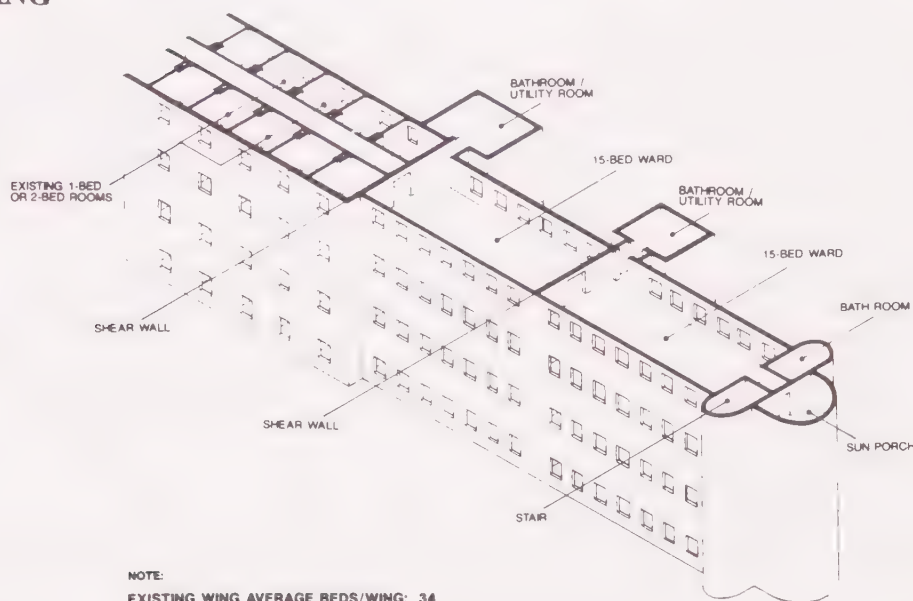


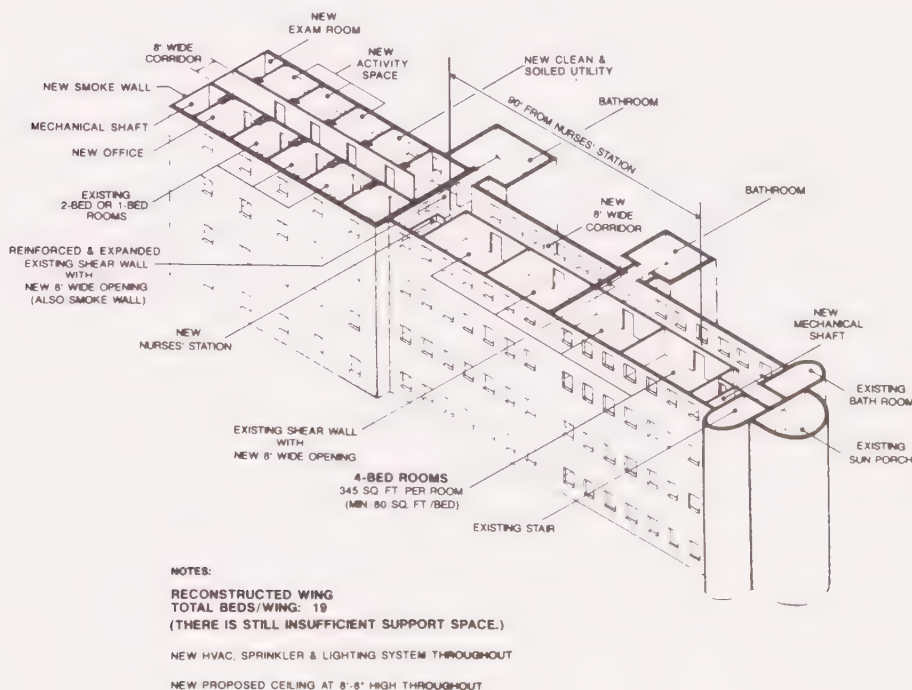
Figure 12b

NURSING WING RENOVATION

This diagram shows a reconfiguration of an existing wing to satisfy planning code requirements.

The 15-bed wards are reconfigured into four 4-bed rooms. (Four beds are the maximum allowed in one room, with a minimum size of 320 square feet for a 4-bed room.)

Total number of beds in this reconfiguration is 19, four 4-bed rooms, one 2-bed room and one private room.



2. ALTERNATE A: RENOVATION WITH MINIMAL NEW CONSTRUCTION

Description

The objective of Alternate A was to upgrade and renovate the existing facilities, adding the minimum new construction necessary to accommodate the space and functional requirements of the program. Existing facilities would be renovated to bring them into conformance with today's codes. (See Figure 13)

Alternate A would add approximately 544,000 square feet of new space to the facilities, about 243,000 of which would be for a new first phase hospital addition to house 270 new beds plus a replacement for materials management, diagnostic and clinic services. This new addition would rise four stories above the adjacent grade at the east side of the site, one story taller than the existing easternmost wing of the hospital.

Another 269,000 square feet of new construction would be added for the creation of "infill" additions between and interconnecting each two adjacent nursing wings of the existing hospital. Over 316,000 square feet of existing patient areas on these nursing wings would also be remodeled to create much more efficient nursing wings and to provide the programmed numbers of beds. The new construction between the existing wings would help to structurally strengthen the main hospital building.

Alternate A would also include the addition of a new 50-unit residential care facility at 32,000 square feet, on the site of the current Clarendon Hall.

In the last phases of the project, another 215,000 square feet of existing space at the west end of the hospital in the Main wing and wings A, B, and C would be renovated for code upgrades and significant functional improvements to the administrative and support functions and the few bed units located there.

Although not included in this project, Alternate A considered future expansion of the Laguna Honda Hospital. If more patient beds are required towards the last phases of the project, an addition of 390 patient beds and 100 residential care units could be substituted for the 50-unit residential care facility now planned for location on the current Clarendon Hall site.

Phasing

To maintain continuous operation of the current bed count at the hospital during the course of construction and renovation, the project work would have to be undertaken in a number of phases as follows:

- Phase 1: Expand and upgrade the existing power plant. Build new five-story addition, located at the current east parking lot site, to house materials management, diagnostic and clinic services, and 270 new beds. Vacate patient wings L and O.
- Phase 2: Build new infill between wings L and O and rebuild this combined wing. Move patients from wings K and M into the new L-O wing.
- Phase 3: Build new infill between wings K and M and rebuild this combined wing. Move patients from wings F and G into the new K-M wing.
- Phase 4: Build new infill between wings F and G and rebuild this combined wing. Move patients from wings D and E into the new F-G wing.
- Phase 5: Build new infill between wings D and E and rebuild this combined wing. Move patients from wing C and Clarendon Hall into new D-E wing.
- Phase 6: Build addition to wing C; renovate wings A, B, C and Main Building.
- Phase 7: Renovate remainder of Main Building and wings A and B. Demolish Clarendon Hall, and
- and 8: build a new 50-unit Residential Care Facility at the Clarendon Hall site.

Schedule

There are eight sequential phases within the Alternate A scheme and the entire project is estimated to take 11 1/2 years to complete from beginning to end of construction. Given the time required for bond approval, architect, engineer, and EIR consultant selection, the mandated State agency reviews, and the completion of the EIR (Environmental Impact Report) required by the City, it is estimated that construction will not begin until July 1997.

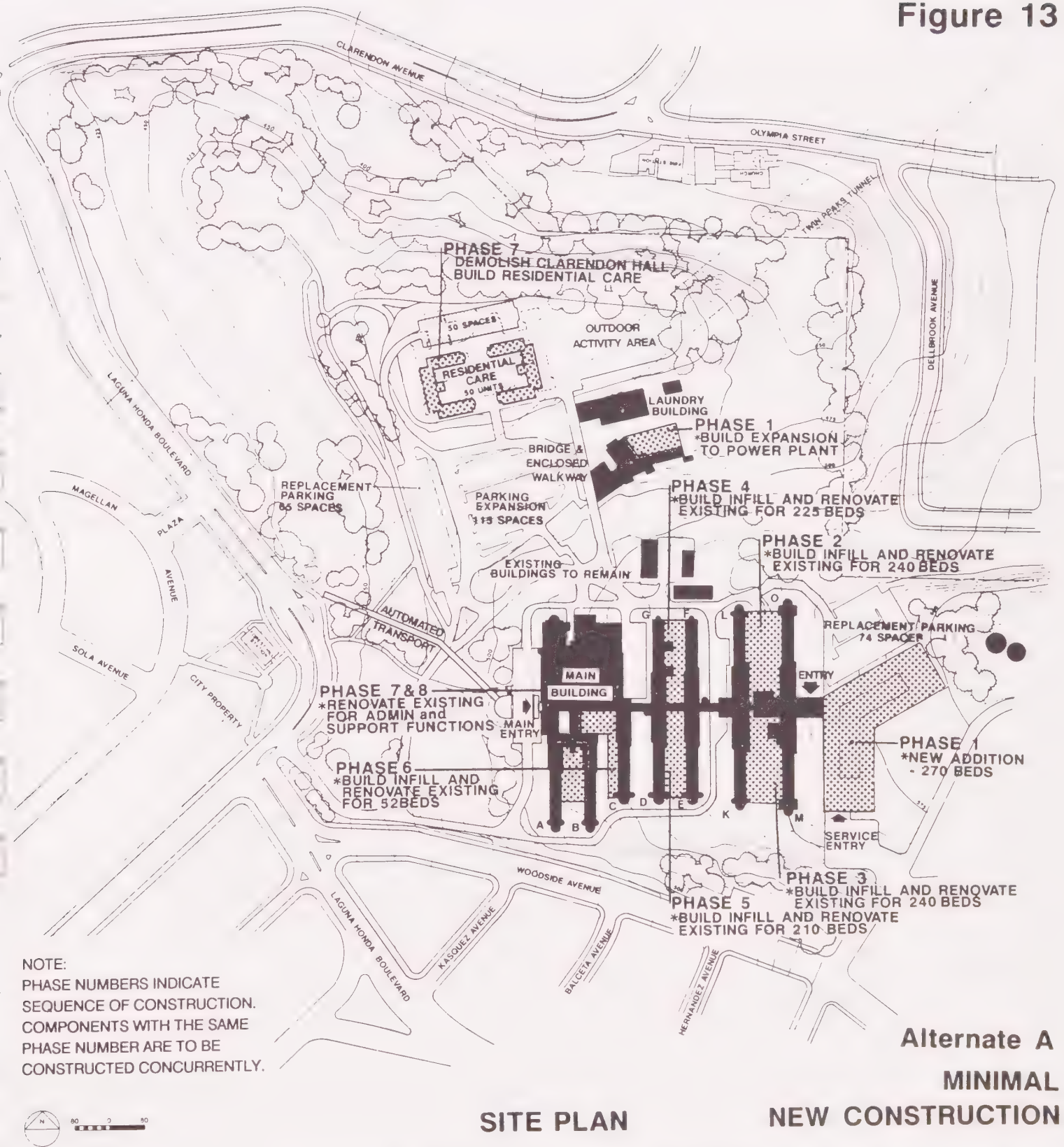
Using the Alternate A approach, all the phases of the project would therefore not be complete until January 2009, whereas the Alternate B scheme would lead to completion in January 2005, 4 years sooner, and the Alternate C scheme would lead to completion in July 2003, 5 1/2 years sooner.

Costs

Alternate A is the most expensive of the three major Alternates studied. In large part this is due to the protracted time schedule, and is compounded by the difficulties which are anticipated in constructing "infill" areas between the existing Laguna Honda wings.

The Project Cost at the end of the eight phases of construction, estimated for completion in January 2009, is estimated to be \$759.8 million, compared to \$574.0 million for Alternate B and \$548.4 million for Alternate C.

Figure 13



Comments on Alternate A

Site Use: The Alternate A scheme (see Figure 13) creates a large new 5-story building (four above-grade stories) at the east side of the site. This intrudes into the view lines of the neighboring single family homes and generates a concentration of activity at the far southeast border of the site, neither of which is very desirable.

Alternate A creates a small new service drive off Woodside Avenue, adjacent to the Youth Guidance Center. This would help to relieve congestion at the main Laguna Honda Blvd. and Dewey entrance.

Functional Efficiency: Since the Alternate A scheme adds new construction to the end of the existing Laguna Honda Hospital, it would maintain and add to the long spine which runs the east-west length of the hospital. This would exacerbate the long travel distances which, even now, make nursing and service delivery difficult and inefficient.

The "infill" areas between the existing nursing units would allow the wings to become considerably more efficient than they are now, but the linear configuration and structural shear walls must, of necessity, still be maintained. Therefore, it would be impossible to create an optimum shape for the long term care nursing units, which is very important for maintaining maximum patient visibility with minimal staff.

Finally, many of the existing support services would be remodeled in place. The building would be brought up to code requirements, but the department layouts would be less efficient than if they were designed anew for current-day operational methods and technologies.

Disruption During Construction: Alternate A is the most disruptive of the three major options studied. Renovation must continually take place within and between the confines of the existing structure. Phase by phase, wings must be vacated and then, after remodeling and new construction, reoccupied. Many ancillary and support departments must be renovated while the services are in operation.

Schedule: Alternate A has the most phases and the longest schedule of the three major options studied.

Costs: At \$759.8 million estimated project cost, Alternate A is the most expensive of the three options studied.

3. ALTERNATE B: MULTI-PHASE REPLACEMENT

Description

The Alternate B concept explores an almost total replacement of the existing Laguna Honda hospital building, implemented in a few major construction phases (See Figure 14). Unlike the concept investigated in Alternate A, this option entirely replaces the existing power plant and ultimately demolishes all but the Main Wing and Wings A and B of the main hospital. Like Alternate A, the existing Clarendon facility is also demolished and replaced by a 50-unit residential care facility.

The main block of the new construction for Alternate B would be eight stories tall relative to the adjacent grade, although it would really be only one story taller than the east end of the existing Laguna Honda Hospital. It would ultimately accommodate 1207 beds. The total area of new construction would be about 837,000 gross square feet, plus a 32,000 square foot residential care facility. Approximately 141,000 square feet would be remodeled in the remaining Main Wing and Wings A and B.

The Alternate B structure would be located at the northeast end of the existing hospital, toward the higher part of the hillside. A major new service drive would be created from Clarendon Avenue. Newly constructed space would connect the existing building with the new structure on the 2nd and 3rd floors.

All of the nursing units would be located in new space and would thus be designed for optimal efficiency. Most ancillary and support departments, such as Food Service and Central Supply, would also be replaced in new construction. The existing construction which remains would be remodeled to serve as administrative space, the Child Care Center, the Adult Day Health Care Center, and other miscellaneous activity, meeting room, and storage areas.

Although not included in this project, Alternate B considered future expansion of the Laguna Honda Hospital. If more patient beds are required, a later phase of construction could provide a 390-bed addition at the site of demolished hospital Wings D, E, K, and M at the southern side of the site, adjacent to and south of the other new construction.

Phasing

Alternate B would be implemented in four major construction phases as follows:

Phase 1: Build a new service road from Clarendon Avenue. Build a new addition containing 660 patient beds, support services, and a new replacement power plant. Move patients from Wings L, O, M, and K into new building.

- Phase 2: Demolish Wings L and O, and build new 300-bed addition in their place. Move patients from Wings F, G, C, D, and E into new addition.
- Phase 3: Demolish Wings F and G, and build new 247-bed addition in their place. Move patients from Clarendon Hall into new addition. Demolish Wings C, D, E, K and M.
- Phase 4: Demolish Clarendon Hall, and build new 50-unit residential care facility in its place. Renovate existing hospital Main Wing and Wings A and B for administrative, ambulatory, and support space. Build new surface parking at site of demolished south Wings C, D, E, K, and M.

Schedule

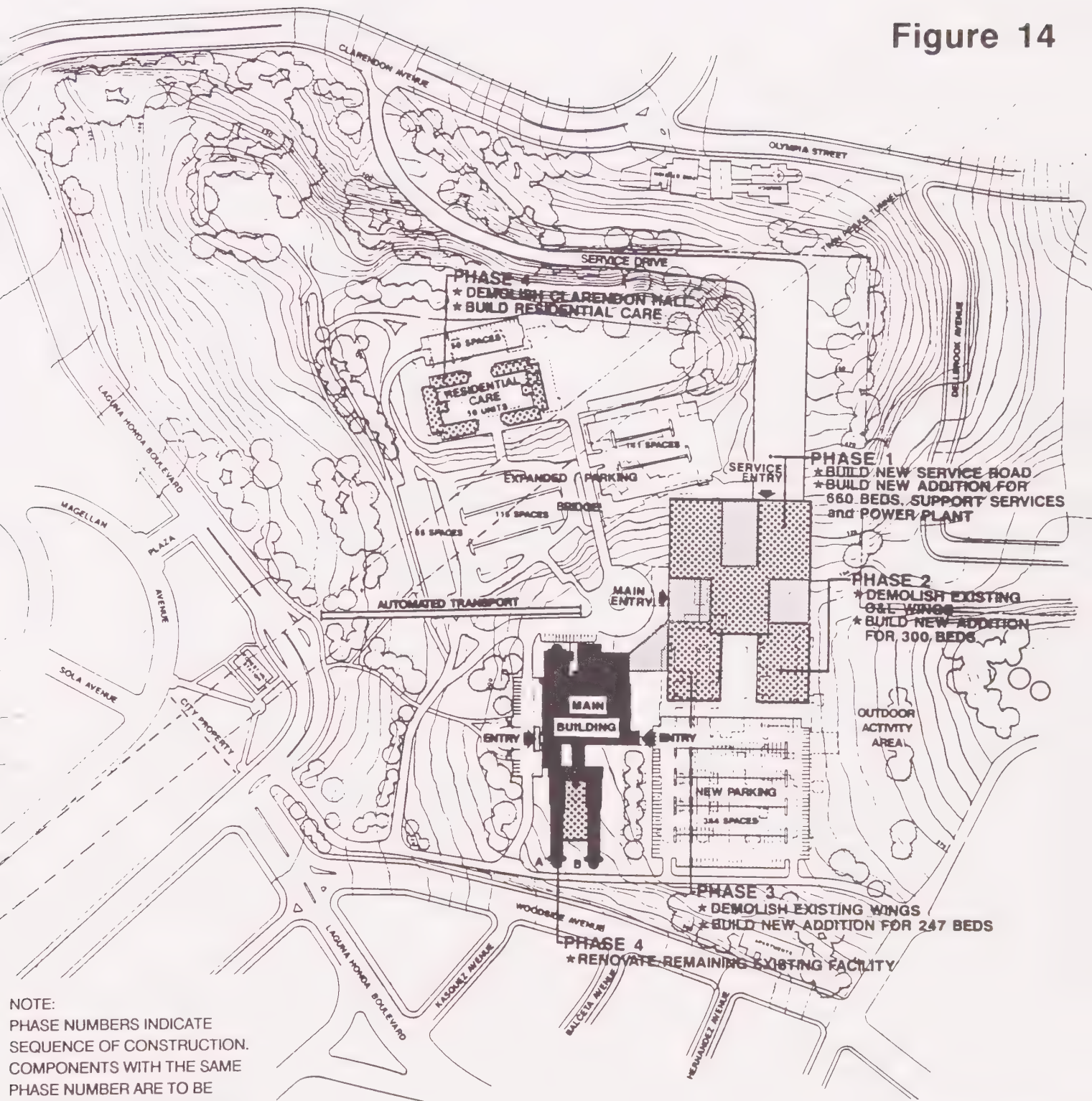
There are four sequential phases within the Alternate B scheme and the entire project is estimated to take 7 1/2 years to complete from beginning to end of construction. As with Alternate A, the initial time required for bond approval, architect, engineer, and environmental review consultant selection, the mandated State agency reviews, and the completion of the environmental review required by the City, will cause the estimated start of construction to be July 1997.

Under the Alternate B approach, all the phases of the project would therefore be complete at about January 2005, 4 years earlier than the Alternate A scheme which would not be done until January 2009. Alternate C, however, would be completed 1 1/2 years sooner, in July 2003.

Costs

Based on the preliminary project schedule noted above, Alternate B is estimated to cost approximately \$574.0 million. This is about \$185.8 million less than Alternate A, a substantial savings, but it is still \$25.6 million **more** than Alternate C.

Figure 14



Alternate B

SITE PLAN MULTI-PHASE REPLACEMENT

MASTER PLAN • LAGUNA HONDA HOSPITAL

CITY & COUNTY OF SAN FRANCISCO

A-10

Comments on Alternate B

Site Use: The Alternate B scheme (see Figure 14) creates a large new 8-story building, one story taller than the existing hospital at the east end of the site. As with Alternate A, this intrudes into the view lines of the neighboring single family homes and creates a fairly obtrusive building, which is very undesirable to the surrounding community.

An extensive new service drive would be created in Alternate B. This would help to divert traffic away from the currently congested entrance at the corner of Laguna Honda Blvd. and Dewey but would entail considerable site modification and expensive site work.

Functional Efficiency: The Alternate B scheme basically replaces most of the hospital with new construction. Therefore, it is able to design the nursing units and support spaces for optimum functional and operational efficiency.

The existing main entry into the renovated Main Wing of the hospital would be maintained for administration, but a new main entrance would be created directly into the new block of construction, at the 2nd floor level. The new lobby would have a direct connection back to the existing building.

Some general storage areas would be in the existing building, somewhat remote from the new service dock and receiving areas, but otherwise, the Alternate B scheme presents a potentially efficient and operationally sound concept which should be considerably more labor saving and cost-effective for the hospital to operate than the current facility.

Disruption During Construction: Because it is staged so that new construction is always built before existing is demolished, and because the biggest piece of new construction begins at a little distance from the existing nursing areas, Alternate B would be much less disruptive to build than Alternate A. Even site traffic patterns would not be too seriously disrupted during construction.

The existing bridge which connects Clarendon Hall with the main hospital could be left in place until after most of the new construction is complete. Similarly, the existing power plant could be operational until the new one, in Phase 1 construction, is complete and operational.

Schedule: Alternate B is estimated to take 7-1/2 years to complete, 4 years less than Alternate A.

Costs: At \$574.0 million estimated project cost, Alternate B is \$185.8 million less expensive than Alternate A. This is partly due to the significantly shorter estimated construction schedule, and also partly due to the fact that the new construction in four major phases of Alternate B will be less difficult and less expensive to implement than the eight-phase work of Alternate A, which is heavily interwoven with existing construction and unknown conditions.

Appendix B. Alternate Comparison Matrix

Presented on the following page is the evaluation matrix developed in the Master Plan study. This matrix illustrates further the specific reasons for selecting the recommended Project as the recommended solution for the Laguna Honda campus.

During the Master Plan study, a series of evaluation criteria was established. The criteria included construction cost, operational cost, constructability, circulation (site and building), and impact on city and neighborhood. The consultant team, the hospital management, and the Department of Public Health team then established weights (importance factors) from 1 to 3, for each evaluation category. For example, construction cost was considered very important and was weighted with a "3." Pedestrian circulation on site was considered less important and was weighted with a "1."

The team then assessed the various alternatives and scoured each Alternate scheme from 1 to 5 in each evaluation category. Finally, the scores were multiplied by the weights to yield a "weighted score." The recommended Project was over 70% higher (131 vs. 77) than Alternate B and over 125% higher (131 vs. 58) than Alternate A. This significant order of magnitude difference confirmed the unanimous choice of the recommended Project as the best of the options and the recommended solution for Laguna Honda Hospital.

Figure 15

ALTERNATE COMPARISON MATRIX

EVALUATION CRITERIA	Weight *	ALT. A		ALT. B		ALT. C	
		Score	Weighted Score	Score	Weighted Score	Score	Weighted Score
Construction Cost							
Cost of total project (1207 beds)	3	2	6	3	9	4	12
Impact of escalation	2	1	2	4	8	4	8
Operational Cost							
Staffing efficiency at completion	3	1	3	2	6	5	15
Impact during construction	3	1	3	2	6	4	12
Functional adjacencies	2	3	6	4	8	5	10
Constructability							
Interim Phases	2	2	4	1	2	3	6
Major Phase	2	3	6	2	4	4	8
Expandability							
Ease of adding 390 beds	1	1	1	3	3	2	2
Circulation							
Access from parking and public transit	2	1	2	2	4	3	6
Ease of vehicular circulation on site	1	2	2	2	2	4	4
Ease of pedestrian movement on site	1	1	1	2	2	1	1
Internal circulation - all modes							
Interim Phases	2	2	4	1	2	4	8
At project completion	2	2	4	3	6	5	10
Impact on City/Neighborhood							
Traffic and transportation							
Interim Phases	2	1	2	2	4	2	4
1207 beds	2	2	4	3	6	4	8
Vista maintenance from adjacent areas	3	1	3	1	3	5	15
Maintenance of open areas on site	1	5	5	2	2	2	2
TOTAL SCORE		31	58	39	77	61	131

* Weighting Factors: 1,2,3, with 3 indicating the greatest importance. Scoring Factors: 1 to 5, with 5 being the highest score. In the scoring columns, the "weighted score" is the product of the raw score and the weighting factor.

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Appendix D. Bibliography of Studies and Sources

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Laguna Honda Facility Master Plan. Preliminary Program Statement.
(Owner Provided Program) June 1989 (see Exhibit 1)

Definition of Terms Relating to Current and Proposed Programs or Services. (Provided by Laguna Honda Hospital). (see Exhibit 2)

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Report Period 07/01/87-06/30/1988). Prepared 12/90/90.
- Departmental Revenue and Expense statement for Fiscal year ending
6/1989.
- Infection Control Manual (selected portions)
- Medi-Cal Cost Reports (selected).
- Site and building plans.
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- HCFA Report (February, 1989).
- Interviews conducted by the consulting team and LHH representatives
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December, 1989.

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- Commission on Aging: **1989-1993 Planning and Service Area Plan.**
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"An Evaluation of the Medi-Cal Programs System" Lewin and Associates, October, 1987.

STRUCTURAL, ASBESTOS, ROOF CONDITION ASSESSMENT STUDIES

Structural Reports

The structural reports listed below were prepared by H.J. Brunnier Associates, Structural Engineer, San Francisco, CA, and were used as the basis for the summarizations included in Facility Structural Assessment Report.

1. Vertical Load Capacity for Clarendon Hall.
2. Lateral Load Capacity Evaluation for Clarendon Hall. August 14, 1987.
3. Tentative Strengthening Procedures for Clarendon Hall. August 14, 1987.
4. Vertical Load Capacity Evaluation for Administration Building.
5. Lateral Load Capacity Evaluation for Administration Building.
6. Tentative Strengthening Procedures for Administration Building.
7. Vertical Load Capacity Evaluation for Wings A through G. April 13, 1984.
8. Lateral Load Capacity for Wings A through G. April 23, 1984.
9. Tentative Strengthening Procedures for Wings A through G. May 4, 1984.
10. Vertical Load Capacity Evaluation for Wings K, L, M and O. January 13, 1982.
11. Lateral Load Capacity Evaluation for Wings K, L, M and O. May 5, 1982.
12. Tentative Strengthening Procedures for K, L, M and O. June 4, 1982.
13. Vertical Load Capacity Evaluation for Maintenance Building.

14. Lateral Load Capacity Evaluation for Maintenance Building.
15. Tentative Strengthening Procedures for Maintenance Building.
16. Vertical Load Capacity Evaluation for Laundry Building.
17. Lateral Load Capacity Evaluation for Laundry Building.
18. Tentative Strengthening Procedures for Laundry Building.
19. Lateral Load Capacity Evaluation for Water Tanks.
20. Tentative Strengthening Procedures for Water Tanks.
21. Vertical Load Capacity Evaluation for Boiler Plant.
22. Lateral Load Capacity Evaluation for Boiler Plant.
23. Tentative Strengthening Procedures for Boiler Plant.
24. Lateral Load Requirements and Strengthening Procedures for Piping and Equipment Bracing.
25. Vertical Load Capacity. Bridge Structure.
26. Lateral Load Capacity. Bridge Structure.
27. Tentative Strengthening Procedures. Bridge Structure.
28. Letter from H.J. Brunnier Associates to Mr. Norman M. Karasick, City Architect, dated March 25, 1988.
29. Letter from H. J. Brunnier Associates to Mr. Tom Thornton, dated December 5, 1989, regarding: Damage Assessment for Buildings at Laguna Honda Hospital caused by the Loma Prieta Earthquake of October 17, 1989.

Asbestos Assessment

30. Assessment of Suspect Asbestos Containing Building Materials at Laguna Honda Hospital. Clayton Environmental Consultants, Pleasanton, CA. February 9, 1990.

Roof Conditions

31. Emergency Roof Condition Study of Laguna Honda Hospital. Technical Roof Services, Inc., Martinez, CA. December 1988.

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- National Fire Protection Association (NFPA 101) Life Safety Code, 1988 Edition.
- Uniform Building Code (UBC), 1988 Edition with State of California 1989 Amendments.
- City and County of San Francisco Municipal Building Code, 1989 Edition.
- Code of Federal Regulations, Title 42, Public Health, 1988 Edition.
- California Administrative Code, Title 19 Public Safety.


Architectural Assessment

HISTORICAL/ARCHITECTURAL SIGNIFICANCE

Rating sheet from Architectural Survey regarding Laguna Honda Hospital.

LAGUNA HONDA BLVD / WOODSIDE AVE		2342	ptn. 7	2
street address		block number	lot number	summary
LAGUNA HONDA HOSPITAL		landmark number		
building type/use/number of floors				

<p>RELATIONSHIP WITH SURROUNDING BUILDINGS</p> <p>Relationship of setting to building -2 -1 0 1 2 3 4 5</p> <p>Importance as contribution ALONE to a cluster/streetscape -2 -1 0 1 2 3 4 5</p> <p>ARCHITECTURAL DESIGN VALUATION</p> <p>Facade proportions -2 -1 0 1 2 3 4 5</p> <p>Richness/Excellence of detailing/decoration -2 -1 0 1 2 3 4 5</p> <p>Unique visual feature of interest 0 1 2 3 4 5</p> <p style="margin-left: 40px;">PEAR VIEW</p> <p>Example of a rare or unusual style or design 0 1 2 3 4 5</p> <p>Overall architectural quality -2 -1 0 1 2 3 4 5</p>	<p><input type="checkbox"/> PROPOSED FOR FURTHER INVESTIGATION</p> <p><input type="checkbox"/> CORNICE, PARAPET, APPENDAGE</p> <p style="margin-left: 20px;">Importance of cornice to building design -2 -1 0 1 2 3 4 5</p> <p style="margin-left: 20px;">Cornice contribution to streetscape -2 -1 0 1 2 3 4 5</p> <p>FACADE CONDITION</p> <p>Physical condition -2 -1 0 1 2 3 4 5</p> <p>Paint/Material color -2 -1 0 1 2 3 4 5</p> <p><input type="checkbox"/> REMODELING</p> <p style="margin-left: 20px;">Appropriateness of improvements -2 -1 0 1 2 3 4 5</p>
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Field Notes

ARGE FORM ENDING OF WINGS
FLANKED BY ROUND SMOKE
TOWERS

REPETITION OF THIS MAKES
VERY IMPOSING ELEVATION

Review Notes

Junior League Listing
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☐ Northern California Guide
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Appendix E. Typical Skilled Nursing Facility Patient Room

The Laguna Honda Hospital space program is currently based on typical nursing units of seven 4-bed patient rooms and two single patient rooms per unit. There are thirty two typical 30-bed SNF nursing units in the program, plus several other specialty units.

Four patients per room is the maximum number allowed by the Federal Health Care Financing Administration (HCFA) if an institution is to receive Medi-Cal and Medicare reimbursement.

In the development of this project, 4-bed patient rooms and 2-bed patient rooms were evaluated. While the double rooms were considered desirable, primarily because they provide more patient privacy, it was also considered important to be consistent with HCFA's minimum guidelines of 4 beds per room. Furthermore, the 2-bed rooms required an additional area of 34,200 net square feet. (See Figure 9.) This translates to dollars as follows:

- $34,200 \text{ NSF} \times 1.6 = 54,720 \text{ DGSF}^*$
- $54,720 \text{ DGSF} \times 1.2 = 65,664 \text{ BGSF}^{**}$
- **65,664 BGSF of additional area must be added**
 - 650 beds would be built in Phase 1, beginning July 1, 1997, at \$291.99 per square foot (escalated construction cost).
 - 557 beds would be built in Phase 2, beginning July 1, 2000, at \$358.94 per square foot (escalated construction cost).
 - Pro-rating the additional area, there would be approximately 35,360 BGSF of extra area built in Phase 1 and 30,304 BGSF of extra area built in Phase 2.
- | | |
|-------------------------------------|---------------------|
| 35,360 BGSF x \$291.99 | = \$ 10,325,000 |
| <u>Contingencies and Soft Costs</u> | <u>6,249,000</u> |
| Phase 1 Costs | \$16,574,000 |
- | | |
|-------------------------------------|---------------------|
| 30,304 BGSF x \$358.94 | = \$10,877,000 |
| <u>Contingencies and Soft Costs</u> | <u>6,583,000</u> |
| Phase 2 Costs | \$17,460,000 |
- | | |
|--|----------------------------|
| Total cost premium for having 2-bed rooms instead of 4-bed rooms is | <u>\$34,034,000</u> |
|--|----------------------------|

* DGSF means Departmental Gross Square Feet, the block area of any department including internal corridors, wall thicknesses, etc.

** BGSF means Building Gross Square Feet, the total building area including public corridors, main elevators and stairs, building equipment space, and exterior walls.

This cost does not include a pro-rated portion of mechanical penthouse space. The over \$34 million cost differential was the primary factor leading to the use of the 4-bed room as the typical bedroom model. Laguna Honda management and the Department of Public Health did not consider it appropriate or affordable to go beyond this level at this time. All program and planning work has therefore been based on a 4-bed patient room model, except where special functions and/or codes require a 1 or 2-bed room. However, this issue may be reconsidered during Project design and development. A contingency allowance in the budget would permit reducing the number of 4-bed rooms and including more 2-bed rooms in the Project.

Figure 16

AREA COMPARISION : PATIENT ROOMS 4-BED vs 2-BED												
NURSING DISCIPLINE	NO. BEDS	4-BED					2-BED					INCREASE AREA
		NO. RM.	BEDS/ ROOM	SF./ RM.	TOTAL AREA	UNIT AREA	NO. RM.	BEDS/ ROOM	SF./ RM.	TOTAL AREA	UNIT AREA	
Typical Skilled Nursing @ 30 beds / unit		7 2	4 1	450 200	3,150 400							
31 units	930	217 62	4 1	450 200	97,650 12,400	110,050	434 62	2 1	300 200	130,200 12,400	142,600	32,550
Hospice / Aids	60	7 32	4 1	450 220	3,150 7,040	10,190	14 32	2 1	300 220	4,200 7,040	11,240	1,050
ADRD (2 Units) @ 30 beds / unit	60	28 4	2 1	300 200	8,400 800	9,200	28 4	2 1	300 200	8,400 800	9,200	0
Rehab. Unit	30	14 2	2 1	300 200	4,200 400	4,600	14 2	2 1	300 200	4,200 400	4,600	0
Head Trauma	25	11 3	2 1	300 200	3,300 600	3,900	11 3	2 1	300 200	3,300 600	3,900	0
Med. / Psych.	22	9 4	2 1	300 200	2,700 800	3,500	9 4	2 1	300 200	2,700 800	3,500	0
Ventilator	15	15	1	150	2,250	2,250	15	1	150	2,250	2,250	0
Geropsych. SNF	30	4 5 4	4 2 1	450 300 200	1,800 1,500 800	4,100	8 5 4	2 2 1	300 300 200	2,400 1,500 800	4,700	600
Acute General Med.	20	8 4	2 1	300 200	2,400 800	3,200	8 4	2 1	300 200	2,400 800	3,200	0
Acute Rehab.	15	5 5	2 1	330 220	1,650 1,100	2,750	5 5	2 1	330 220	1,650 1,100	2,750	0
	1,207					150,990					185,190	34,200

Appendix F. Distribution of Beds by Type for 1207-Bed Program

Unit Type	No. of Private Rooms	No. of Semi -Private 2-Bed Rooms	No. of 4-Bed Rooms	Beds Total	% of Total Beds
31 SNF Units (30 beds each)*	62	0	217	930	77%
Hospice / Aids SNF Unit	32	0	7	60	5%
ADRD SNF Unit**	4	28	0	60	5%
Rehab. SNF Unit	2	14	0	30	2%
Head Trauma SNF Unit	3	11	0	25	2%
General Med. Psych. Unit	4	9	0	22	2%
Ventilator SNF Unit	15	0	0	15	1%
Geropsych. SNF Unit	4	5	4	30	2%
Acute General Med. Unit	4	8	0	20	2%
Acute Rehab. Unit	5	5	0	15	1%
Total Number of Rooms	135	80	228	-	-
Total Beds by Room Type ***	135	160	912	1,207	-
Percentage of Beds by Type	11%	13%	76%	100%	-

* SNF = Skilled Nursing Facility

** ADRD = Alzheimer's Disease and Related Diseases.

*** This bed distribution does not include the 100 beds to be located in the 50-unit Residential Care Facility.

Data Source: **Laguna Honda Hospital Facility Master Plan, Operational and Space Program, Volume 2 of 3,**
Kaplan McLaughlin & Diaz, pp. 5.14 - 4.24.

Appendix G. Departmental Space Summary

No.	Department	% of Total Building
1	Administration	3.0%
2	Medical Services	3.7%
3	Nursing Services	2.4%
4	Patient Care Areas	61.3%
5	Patient Activity Areas	1.8%
6	Clinical Services	4.5%
7	Outpatient Services & Program Development	1.7%
8	Volunteers	0.4%
9	Support Services (including power plant)	10.7%
10	Penthouse & Mechanical Space	4.9%
11	Miscellaneous Components *	2.4%
12	Residential Care Housing	3.1%
	Total Building	100.0%

* These include Adult Day Health Care, Senior Center, Child Care Center and Aqua Therapy.

Appendix H. Construction Cost Methodology

Construction cost estimates were prepared for the Laguna Honda Hospital replacement project for the purpose of comparing alternate schemes and establishing the order of magnitude of the construction costs for the project. Following is a brief description of some of the key assumptions that were made, sources that were used, and the methodology employed.

Methodology

Construction costs were estimated for each building component of the Laguna Honda Hospital alternate schemes based on unit costs per gross square foot of area. Specific allowances were also included for items such as demolition of existing buildings, seismic upgrades where required, development of parking and site access roads, etc. For each alternate scheme, the construction cost was estimated for each building component in terms of current dollars. Then, a 17% design contingency, a 10% construction contingency, and a 2% required allowance for art were added to generate total estimated **Construction Cost**. To this subtotal was added an allowance for **Project Design and Control**, which includes architecture and engineering fees, EIR studies, construction management fees, planning and assessment allowances, asbestos removal, material testing, permits and other fees, and DPW and LHH management. The total cost thus calculated represents the estimated **Project Cost** for each alternate scheme in terms of current 1992 dollars.

All of these costs were then escalated to reflect the actual time of construction. The total escalated project cost figures are the ones used for comparing the alternate schemes.

Construction Cost, prior to adding contingencies, includes:

- Inflation assumed at 3 1/2% per 6 months compounded
- Costs are escalated from the following base numbers in today's costs.

- New construction @ \$200/SF

- Renovation @ \$225/SF

- Infill construction @ \$225/SF

- New housing construction @ \$150/SF

- New Construction Costs include:

- All foundations and structure

- All finishes

- All mechanical and electrical

- All associated site work and landscaping as required

- All demolishing of existing structures

- Tie-ins to existing structures as required

- Temporary construction

- Contractors general conditions, overhead and profit

Renovation Costs include:

- Asbestos removal
- Gut and demolition
- All new mechanical and electrical
- All new finishes
- Seismic upgrading
- Code upgrading:
 - energy
 - handicap requirements
 - egress requirements
 - life safety
 - fire protection
- New roof
- New elevators
- New associated site work as required
- Temporary construction
- Contractors general conditions, overhead and profit

Project Design and Control: These costs are added to the Construction Cost to obtain total Project Cost.

- Architectural/Engineering Fees
- Construction Management Fees
- EIR Studies
- Planning & Assessment
- Asbestos Removal
- Material Testing
- Permits and Fees
- Bond Issuance Costs
- DPW & LHH Management

FF&E - Furniture, Fixtures, and Equipment

- Only built-in furniture and equipment are included in the construction cost.
- Moveable equipment and furniture are not included in the construction cost unit pricing.

Quality of Construction

The quality of construction meets the need to maintain good long-term durability and low maintenance costs.

Escalation

Inflation is assumed at 3-1/2% per 6 months compounded.

Although current escalation might be estimated at 2-1/2% to 3% per year, the Laguna Honda Hospital project is estimated to take at least ten years to complete. Historical records for *Engineering News Record* and *Means* show an historical rate of inflation ranging from 7.44% for ten years to 5.47% for thirty years. Based on these historical records, and the fact that we can not safely assume the current low rate of inflation to continue for the next decade, a more conservative and more realistic long term inflation rate of 3-1/2% per six-month period has been used.

References

- *Means* Construction Cost Index (1961-the present)
- *Means* City Cost Index/City Adjustment
- *Engineering News Record* (ENR) Building Cost Index for San Francisco (1966-the present)
- *Engineering News Record* (ENR) Construction Cost Index for San Francisco (1966-the present)
- ENR Quarterly Cost Report, **Cost Index History**, March 29, 1990

Appendix I. Pro-Forma Operating Analysis

The pro-forma operating analysis was prepared for the Laguna Honda Hospital (LHH) replacement project for the purpose of evaluating the projected revenues and expenses associated with the proposed configuration of the new facility. Following is a brief description of the methodology that was employed and the key assumptions that were made.

Methodology

The general methodology followed in developing the pro-forma operating analysis was to evaluate the historical financial trends and third-party payment and cost reimbursement relationships experienced by LHH. The analysis was based on historical financial information for the fiscal years ended June 30, 1990 and 1991 and budgeted financial information for the fiscal year ending June 30, 1992. Information was extracted from audited financial statements, filed Medicare and MediCal cost reports, and various staffing, financial and statistical reports that were generated internally by LHH.

Additionally, interviews were conducted with LHH department managers and senior management in order to determine the impact of the proposed configuration of the new facility regarding departmental staffing levels and operating revenues and expenses. Historical revenue and expenses relationships were compared to those of other facilities and modified where appropriate.

Assumptions

The gross patient revenue and other operating revenue projects were based on actual results of the fiscal year ended June 30, 1991. These amounts were adjusted for the actual routine daily room charges in place as of August 1, 1991, and for the anticipated patient utilization during the projection period. The patient utilization projection was provided by LHH management. The routine daily room charges were projected to increase at 7.0 percent per annum for inflation. Consistent with current pricing policies at LHH, this annual increase is anticipated to be the same as the annual MediCal payment rate increase. Ancillary service charges and other operating revenue are both expected to increase at 5.0 percent per annum for inflation, which is equal to the general inflation rate used in the analysis.

Net patient service revenue consists of gross patient service revenue reduced by contractual allowances that result from participation in various third-party payment programs at reduced payment rates. The primary components of the contractual allowances result from the participation of LHH in the federal Medicare program and the state MediCal program. The contractual allowance section of the pro-forma operating analysis was projected based on current Medicare and MediCal reimbursement regulations.

Reimbursement from the federal Medicare program was projected based primarily on data contained in the filed cost report for the fiscal year ended June 30, 1990. Medicare reimbursement rates were assumed to increase at an annual inflation rate of 3.5 percent. This inflation factor is slightly above recent actual updates but still less than the Health Care Financing Administration's (HCFA) most recent projections. It should be noted that actual increases have generally been less than HCFA initially projected.

LHH is reimbursed for skilled nursing care services by the state MediCal program based on a fixed payment rate per patient day. The MediCal reimbursement projection was based on the actual payment rate as of August 1, 1991, which was then adjusted by an annual inflation rate of 7.0 percent. This is the most critical assumption in the pro-forma operating analysis due to the fact that approximately 88.4 percent of the total patient days at LHH are anticipated to be skilled nursing patient days that are subject to MediCal reimbursement. LHH has in recent years received annual MediCal increases in excess of 7.0 percent, but is now approaching the prospective class median payment limit as established by the State Department of Health Service. An analysis of the annual percentage increase for Medi-Cal distinct part skilled nursing per diem rates over the past ten years indicated an average annual increase of approximately 4.0 percentage point above the general inflation rate as measured by the Consumer Price Index. In light of the current budget situation being faced by the State of California, it was deemed realistic, and yet still conservative, to assume an annual MediCal rate increase of 7.0 percent, or 2.0 percentage points above the anticipated general inflation rate.

The approved operating budget for the fiscal year ending June 30, 1992, was used as the basis for the anticipated staffing levels and the salary and wage expense projection. Interviews were conducted with department managers and senior management at LHH to determine the appropriate staffing levels for the new facility configuration and adjustments were made where appropriate. The projected staffing levels by job class within department were then multiplied by the projected annual salary per full-time equivalent to arrive at the projected salary expense. Salaries and wages were inflated based on various anticipated salary increases by employee group that ranged from 4.0 to 7.0 per annum. These were derived from historical averages of benchmark positions as provided by the City of San Francisco Civil Service Commission. Employee benefits were calculated based upon the approved budget for the fiscal year ending June 30, 1992 compared to the actual experience for the fiscal year ended June 30, 1991. Employee benefits were computed at 27.34 percent of salaries and wages.

Other operating expenses include supplies, professional fees, purchased services, other expenses and the provision for bad debts. The approved budget for the fiscal year ending June 30, 1992, compared to actual results for the fiscal years ended June 30, 1990 and 1991, were used as the basis for the other operating

expense portion of the projection. The amounts were adjusted for anticipated changes resulting from the new facility configuration and, where appropriate, for the anticipated patient utilization. Other operating expenses were assumed to increase at a 5.0 percent per annum, consistent with the general inflation rate used in the projection. The provision for bad debt was calculated at 1.75 percent of gross patient revenue based upon actual experience for the fiscal year ended June 30, 1991.

Depreciation expense was calculated based on the estimated project costs of the building, fixed equipment and moveable equipment. Depreciation was calculated on the straight line basis assuming an average life of 40 years for the building, 20 years for the fixed equipment, and 12 years for the movable equipment.

	PROJECTED FYE:				
	06/30/00	06/30/01	06/30/02	06/30/03	06/30/04
Net Patient Revenue	\$143,233	\$157,945	\$168,594	\$180,998	\$193,750
Other Operating Revenue	695	730	767	811	859
Total Net Revenue	143,928	158,675	169,361	181,809	194,609
Operating Expenses:					
Salaries & Wages	107,924	120,911	127,359	134,414	141,885
Employee Benefits	28,250	31,577	33,263	35,047	36,933
Supplies	10,515	11,299	11,864	12,544	13,262
Professional Fees	1,854	1,993	2,093	2,197	2,307
Purchased Services	3,583	3,781	3,970	4,169	4,377
Other Expense	5,868	6,154	6,462	6,917	7,402
Provision for Bad Debt	2,986	3,283	3,506	3,744	3,999
Total Operating Expense	160,981	178,998	188,517	199,033	210,165
Gain (Loss) From Operations	(17,053)	(20,323)	(19,156)	(17,224)	(15,556)
Nonoperating Revenue	766	786	805	825	846
OPERATING DEFICIT	(\$16,286)	(\$19,538)	(\$18,351)	(\$16,398)	(\$14,710)
General Fund Contribution	16,286	19,538	18,351	16,398	14,710
Depreciation Expense	4,785	8,766	8,766	21,104	21,104
EXCESS OF REVENUES (EXPENSES)	(\$4,785)	(\$8,766)	(\$8,766)	(\$21,104)	(\$21,104)

Note: The comments and assumptions contained in this study are an integral part of this projected schedule.

Appendix J. Equipment Estimating Methodology

The following procedures were used to estimate moveable equipment costs:

- Reviewed the Facility Master Plan document to determine bed configuration changes that would affect future equipment needs.
- Interviewed Laguna Honda Hospital personnel.
- Interviewed representatives from the City's Bureau of Architecture.
- Reviewed Laguna Honda's existing Annual Asset Valuation Report.
- Interviewed the President of Narvco Enterprises, whose firm performed the most recent valuation of Laguna Honda Hospital's assets.
- Interviewed several appraisal firms for cost comparisons.
- Researched current appraisals for skilled nursing, acute and residential care moveable equipment expenditures.
- Performed a cost-analysis on both an historical and bed configuration methodology.
- Compared results with industry averages.

Based on our analysis, Laguna Honda Hospital will need to purchase approximately \$17,400,000 in 2003 dollars of moveable equipment to furnish the Project as presented in the Facilities Master Plan. This cost estimate is the average of two methodologies which compared: (1) historical moveable equipment expenditures at Laguna Honda Hospital, and (2) industry estimates regarding costs per bed guidelines for the different bed configurations being considered.

The methodology based upon industry guidelines for the various bed configurations resulted in an expenditure of \$16,900,000.

The methodology based upon historical costs resulted in an expenditure of \$17,900,000 after adjusting for bed size differences and the addition of moveable equipment costs needed for the residential care facility.

The estimates are adjusted by 3.8 percent annually from 1991 through 2003 to account for inflation. This is based upon an analysis of the actual experience for the ten year period ended 1990 in which equipment costs rose at approximately 1.2 percent below that of general inflation.

Appendix K. Project Implementation

The data and information contained in this Bond Program Report describe the proposed project for the replacement of Laguna Honda Hospital.

The preparation and approval of the Bond Program is only the first of many steps on the path toward the realization of this project.

The following steps outline the activities that are anticipated after voter authorization of the general obligation bond indebtedness. At each step, input from the community and other affected groups will be considered and accommodated.

STEPS

I. Design Process Start-Up

- Identify the Project Management Team.
- Prepare qualification selection criteria and request for proposal (RFP) or request for qualifications (RFQ) for the consulting design team, and for the environmental review consultant if required.
- Select consulting design team (including traffic/transportation consultant).
- Select environmental review consultant, if required, as an independent contractor.
- Complete standard form for environmental evaluation application, and submit, with fee, to the Office of Environmental Review (OER).
- Delineate construction management approach.
- Delineate cost control and value engineering approach.

II. Funding Start-Up

- Prepare and submit pre-bond sale supplemental appropriation request.
- Prepare qualification selection criteria and request for proposal (RFP) or request for qualifications (RFQ) for bond counsel and financial consultant.
- Select bond counsel and financial consultant.
- Prepare legislation for bond sale.
- Prepare supplemental appropriation request for funds to be received from bond sale.
- Conduct initial bond sale.

III. Schematic Design Phase

- Review project direction as delineated in the Master Facility Plan.
- Refine overall site and building development concepts.
- Prepare and review departmental floor plans.
- Prepare and review overall schematic design, building form, massing, phasing.
- Review design with advisory groups.
- Coordinate schematic design data with environmental review consultant.
- Submit final schematic design documentation for review/approval.
- Prepare cost estimates and perform value engineering review of schematic design package.

IV. Environmental Evaluation

- Obtain determination by OER regarding application of California Environmental Quality Act (CEQA) standards.
- Prepare required environmental document (negative declaration or focused environmental impact report) by environmental review consultant and OER.
- Coordinate with design team regarding appropriate mitigation measures as may be needed.
- Complete environmental review procedures.

V. Design Development Phase (Make-ready, Phase 1 and Phase 2)

- Prepare detailed architectural and engineering plans for site and buildings.
- Review and revise with appropriate committees and Owner representatives.
- Estimate and value engineer project costs to maintain budget.

VI. Construction Document Phase (Make-ready, Phase 1 and Phase 2)

- Prepare Contract Documents, including all required construction documents and specifications.
- Prepare preliminary "make ready" package for preparatory site work.
- Prepare cost estimates and conduct value engineering for all phases of project.
- Review and authorize issuance for bid.

VII. Regulatory Review/Permit

- Submit project documents for review by State (OSHDP).
- Review/respond to State (OSHDP) comments.
- Receive permit to construct facility.

VIII. **Pricing/Bidding**

- Coordinate bidding and contract award activities for
 - Make-ready project
 - Phase 1
 - Phase 2
- Select contractors and complete award of bids and construction contracts.

IX. **Construction**

- Construct
 - Make-ready phase
 - Phase 1
 - Phase 2
- Renovate existing areas during Phase 2 of the project.

X. **Move-In**

- Receive certificate(s) of occupancy.
- Move in furnishings.
- Move in patients/staff at various phases of the project.

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